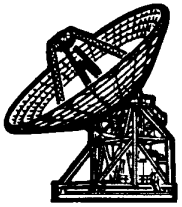
Resource Contention

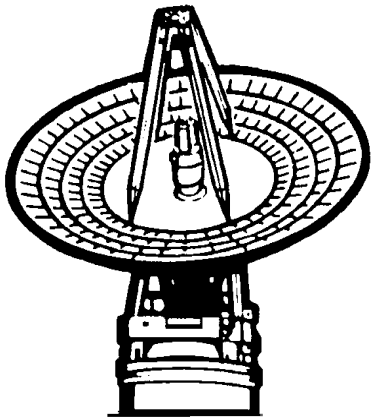
Version 2.0 Final

2006 - 2008

Napoleon Lacey

February 8, 2005





Agenda

- Loading Study
- Periods of Contention
- Events, Recommendations and Analyses

Loading Study

- Project Changes
- New Projects
- Changes in DSN Resource Support Request
- DSN User / Mission Planning Set
  - Ongoing / Approved Projects
  - Advanced / Planning Projects
- Major DSN Downtimes by Date
- IND Resource Implementation Planning Matrix

Loading Study

Project Changes Since August 2004 RARB

- **Cluster 2**
  - End of extended mission changed from 02/28/06 to 12/31/09
- **Gravity Probe-B**
  - End of prime mission changed from 05/30/05 to 08/31/05
  - End of extended mission changed from 12/31/05 to TBD
- **Kepler**
  - Launch date changed from 06/07/07 to TBD
  - Moved to Ongoing / Approved Projects from Advanced Planning Projects
- **Lunar Reconnaissance Orbiter**
  - Moved to Advanced Planning Projects from Future Projects Mission Set
  - Launch date changed from 10/15/08 to 11/15/08
  - End of prime mission changed from 10/15/09 to TBD
  - End of extended mission is TBD

◆ Mars Opportunity Rover

- End of extended mission changed from 10/08/05 to 09/30/06
- Uplink and Downlink MSPA passes will be determined during the Mid-Range Scheduling Process

◆ Mars Spirit Rover

- End of extended mission changed from 10/08/05 to 09/30/06
- Uplink and Downlink MSPA passes will be determined during the Mid-Range Scheduling Process

◆ Mars Telecommunication Orbiter 2009

- Launch date changed from 09/07/09 to 09/22/09
- End of prime mission changed from 09/07/16 to 08/19/20
- End of extended mission changed from 09/07/20 to TBD

◆ Mars Express Orbiter

- End of extended mission changed from 08/03/08 to 12/31/08

Project Changes Since August 2004 RARB

- **Space Technology 5**
  - Launch date changed from 03/01/06 to 02/28/06
  - End of prime mission changed from 05/30/06 to 06/11/06

- **Stereo Ahead and Stereo Behind**

  Additional 2006 Modifications Not Considered/Approved for this RARB
  - End of extended mission changed from TBD to 05/17/11
  - Phasing Orbits daily tracks changed from 3 hours to 12 hours mid-February to mid-May
  - Attenuator track setup time changed from 1-hour to 3-hour and teardown time changed from .25-hour to 2-hour for late February – early April
  - Non-Attenuator track added after each Attenuator track
  - Maneuver dates and times updated for the first launch window

- **Ulysses**
  - End of extended mission changed from 09/30/06 to 03/30/08

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Project Changes Since August 2004 RARB

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New Projects Since August 2004 RARB

Project	Acronym	Launch or Start	EOPM	EOEM
Venus Express	VEX	10/26/05	04/09/06	TBD
SELENE	SELE	11/01/06	11/21/06	TBD
Lunar Reconnaissance Orbiter *	LRO	11/15/08	TBD	TBD

* The requirements for LRO were not considered during the preparation of this RARB.

Changes in DSN Resource Support since August 2004 RARB

- **DSN ZDD Calibrations**
  - Added one 8-hour per year for ZDD Calibration support for DSS-14, 43, and 63
  - Added one 10-hour per year for ZDD Calibration support for:

    DSS-15, 24, 25, 26, 34, 45 54, 55, 65

- **GSSR**

  2006
  - Added one 4-hour Lunar Pole support at DSS-14/15 in early January, early to mid-February, early May, late June, early August, mid-September, late October, early November, early December and late December

  2010
  - Added two 8-hour Asteroid 1999 MN supports at DSS-14 in early June
  - Added four 8-hour Asteroid 1998 UO1 supports at DSS-14 in late September to early October
  - Added five 8-hour Asteroid 2003 UV11 supports at DSS-14 in late October to early November
  - Added five 8-hour Asteroid 2002 VE68 supports at DSS-14 in early November

Loading Study

Changes in DSN Resource Support since August 2004 RARB

- **GSSR**

2011

- Added three 8-hour Asteroid 2000 YA supports at DSS-14 in late December

2012

- Added five 8-hour Asteroid 1991 VK supports at DSS-14 mid- to late January
- Added six 8-hour Asteroid Eros supports at DSS-14 in early late January to early February
- Added five 8-hour Asteroid 2000 ET70 supports at DSS-14 in mid-February
- Added four 8-hour Asteroid 1998 HE3 supports at DSS-14 in early May
- Added seven 8-hour Asteroid 2002 AM3 supports at DSS-14 in mid-to late July
- Added four 8-hour Asteroid 1998 ST49 supports at DSS-14 in mid-October
- Added six 8-hour Asteroid Toutatis supports at DSS-14 in early to mid-December

2013

- Added four 8-hour Asteroid 2002 AY1supports at DSS-14 in early January
- Added five 8-hour Asteroid 1999 OD20 supports at DSS-14 in mid-May
- Added seven 8-hour Asteroid 1998 QE2 supports at DSS-14 in late May to early June
- Added three 8-hour Asteroid 1999 CF9 supports at DSS-14 in late August
- Added six 8-hour Asteroid 1998 ML14 supports at DSS-14 in late August
- Added five 8-hour Asteroid 1998 FW4 supports at DSS-14 in late September
- Added four 8-hour Asteroid 2002 OA22 supports at DSS-14 in late September to early October
- Added six 8-hour Asteroid 2001 AV43 supports at DSS-14 in mid-November

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Changes in DSN Resource Support since August 2004 RARB

- **GSSR**

  2014

  - Added six 8-hour Asteroid 2000 RS11 supports at DSS-14 in mid-March
  - Added ten 8-hour Asteroid P/2004 CB supports at DSS-14 in late May
  - Added four 8-hour Asteroid 2002 SR41 supports at DSS-14 in early June
  - Added five 8-hour Asteroid 2002 CU11 supports at DSS-14 in late August
  - Added four 8-hour Asteroid Hathor supports at DSS-14 in late October

  2015

  - Added six 8-hour Asteroid 2004 BL86 supports at DSS-14 in late January
  - Added five 8-hour Asteroid Icarus supports at DSS-14 in mid-June
  - Added eight 8-hour Asteroid 1994 AW1 supports at DSS-14 in mid to late July
  - Added seven 8-hour Asteroid 1999 JD6 supports at DSS-14 in late July
  - Added five 8-hour Asteroid 2003 RB supports at DSS-14 in late August
  - Added ten 8-hour Asteroid 1998 WT24 supports at DSS-14 in early to mid-December
  - Added five 8-hour Asteroid SD220 supports at DSS-14 in late December

- **Mars Global Surveyor**
  - Added 8 – 16 MGS downlink passes per week to attain continuous coverage (during MRO Aerobraking Phase) - Mid-March through Mid-September in 2006

Changes in DSN Resource Support since August 2004 RARB

Reference Frame Calibrations

- RFC S/X CAT M&E 24-Hour DSS-15/45 and 24-Hour DSS-15/65 Baselines Supports
  - Scheduled on 6 Week Intervals – Saturday/Sunday GMT
  - Baselines are scheduled with maximum separation of 4 weeks
  - Weekend supports will be negotiated during the Mid-Range Scheduling Process
  - If DSS-15/45 is not available use the following alternate plan:
    1. DSS-14/43 2. Any combination of 70M or 34HEF pairs
  - If DSS-15/65 is not available use the following alternate plan:
    1. DSS-14/63 2. Any combination of 70M or 34HEF pairs

- RFC X/Ka CAT M&E 24-Hour DSS-26/34 and 24-Hour DSS-26/55 Baselines Supports
  - Scheduled on 6 Week Intervals – Saturday/Sunday GMT
  - Baselines are scheduled with maximum separation of 4 weeks
  - Weekend supports will be negotiated during the Mid-Range Scheduling Process
  - If DSS-26 is not available use DSS-25 or DSS-24 (after 10/23/06 – Ka-Band Down)
  - If DSS-55 is not available use DSS-54 (after 08/01/07 – Ka-Band Down)

A Note on the Recommendation Page will Read:

RFC S/X CAT M&E or X/Ka CAT M&E 24-hour support is forecast for week XX. The following projects/users will be requested to accommodate the RFC CAT M&E requirement during the Mid-Range Scheduling Process.

Loading Study

DSN User / Mission Planning Set

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
DSN Antenna Calibration	DSN	--	--	--
DSS Maintenance	DSS	--	--	--
DSN ZDD Calibration	DSN	11/01/04	--	--
European and Global VLBI Systems	EGS	--	--	--
Ground Based Radio Astronomy	GBRA	--	--	--
Reference Frame Calibration (Cat M&E and Clock Sync)	DSN	--	--	--
Space Geodesy	SGP	--	--	--
Voyager 2	VGR2	08/20/77	10/15/89	09/30/06
Voyager 1	VGR1	09/05/77	12/31/80	09/30/06
Goldstone Solar System Radar	GSSR	04/01/85	--	--
Ulysses	ULYS	10/06/90	09/11/95	03/30/08
Geotail	GTL	07/24/92	07/24/95	09/30/06
Wind	WIND	11/01/94	11/01/97	09/30/06
SOHO	SOHO	12/02/95	05/02/98	12/31/08
Polar	POLR	02/22/96	08/23/97	09/30/06
Gravity Probe B (non Spacecraft support)	GPB	06/01/96	08/31/05	TBD
Mars Global Surveyor	MGS	11/07/96	02/01/01	11/03/08

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DSN User / Mission Planning Set

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
Advance Composition Explorer	ACE	08/25/97	02/01/01	09/30/10
Cassini	CAS	10/15/97	06/30/08	06/30/10
Stardust	SDU	02/07/99	02/15/06	- - -
Chandra X-ray Observatory	CHDR	07/23/99	07/24/09	07/24/14
Imager for Magnetopause-to-Aurora Global Exploration	IMAG	03/25/00	05/30/02	09/30/10
Cluster 2 - S/C #2 (Samba)	CLU2	07/16/00	02/15/03	12/31/09
Cluster 2 - S/C #3 (Rumba)	CLU3	07/16/00	02/15/03	12/31/09
Cluster 2 - S/C #1 (Salsa)	CLU1	08/09/00	02/15/03	12/31/09
Cluster 2 - S/C #4 (Tango)	CLU4	08/09/00	02/15/03	12/31/09
Mars Odyssey 2001	M01O	04/07/01	08/24/04	11/30/08
Wilkinson Microwave Anisotropy Probe	WMAP	06/30/01	10/01/03	09/30/08
Advanced Tracking and Observational Techniques (ATOT)	ATOT	02/01/02	12/31/08	- - -
International Gamma Ray Astrophysics Lab	INTG	10/17/02	12/18/04	12/31/08
Hayabusa (MUSES - C)	MUSC	05/09/03	06/10/07	- - -
Mars Express Orbiter	MEX	06/02/03	02/11/06	12/31/08
Spirit (Mars Exploration Rover - A)	MER2	06/10/03	04/06/04	09/30/06
Opportunity (Mars Exploration Rover - B)	MER1	07/07/03	04/27/04	09/30/06

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DSN User / Mission Planning Set

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
Spitzer Space Telescope (SIRTF)	STF	08/25/03	02/25/06	10/19/08
Rosetta	ROSE	02/26/04	12/31/15	- - -
Messenger	MSGR	08/03/04	03/19/12	- - -
Deep Impact	DIF	01/12/05	08/05/05	- - -
Mars Reconnaissance Orbiter	MRO	08/10/05	12/31/10	12/31/15
Venus Express	VEX	10/26/05	04/09/06	TBD
New Horizons	NHPC	01/11/06	04/17/16	TBD
Stereo Ahead	STA	02/11/06	05/16/08	05/17/11
Stereo Behind	STB	02/11/06	05/16/08	05/17/11
Space Technology 5	ST5	02/28/06	06/11/06	TBD
Dawn	DAWN	06/17/06	01/12/16	TBD
Lunar - A	LUNA	08/01/07	02/04/08	- - -
Kepler	KEPL	10/01/07	07/01/11	TBD

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DSN User / Mission Planning Set

– Advanced / Planning Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
SELENE	SELE	11/01/06	11/21/06	TBD
Phoenix	PHX	08/03/07	10/26/08	TBD
Lunar Reconnaissance Orbiter	LRO	11/15/08	TBD	TBD
Mars Telecommunications Orbiter 2009	MTO	09/22/09	08/19/20	TBD
Mars Science Laboratory 2009	MSL	10/25/09	03/04/12	TBD
Space Interferometry Mission	SIM	02/14/10	08/30/20	TBD
James Webb Space Telescope	JWST	08/01/11	07/31/16	TBD
Mars Placeholder 2011	M11L	10/30/11	09/10/14	TBD
Mars Placeholder 2013	M13O	11/28/13	08/21/16	TBD

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DSN Major Downtimes by Date

– 2006 –

Site	Description	Start	End	Duration (days)	Week(s)	Start DOY	End DOY
DSS 63	Antenna Controller Replacement	5/22/2006	9/3/2006	105	21 – 35	142	246
DSS 24	X/X-Ka Band	9/4/2006	10/22/2006	49	36 – 42	247	295
DSS 45	Antenna Controller Replacement	10/9/2006	12/10/2006	63	41 – 49	282	344

Resource Allocation Review Board

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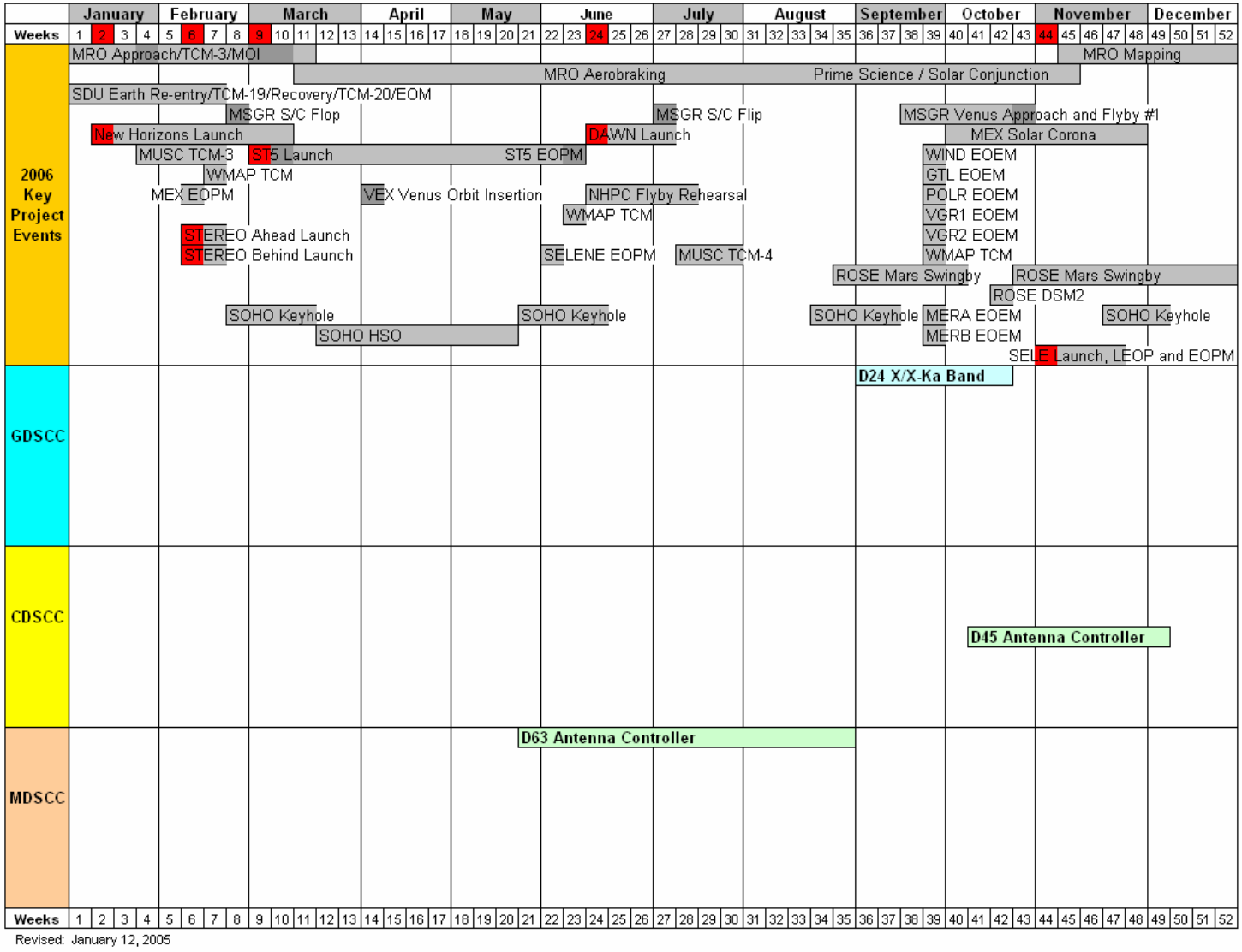
DSN Major Downtimes by Date

– 2006 –



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DSN Major Downtimes by Date

– 2007 –

Site	Description	Start	End	Duration (days)	Week(s)	Start DOY	End DOY
DSS 54	X/X-Ka Band	06/04/2007	07/29/2007	56	23 – 30	155	210

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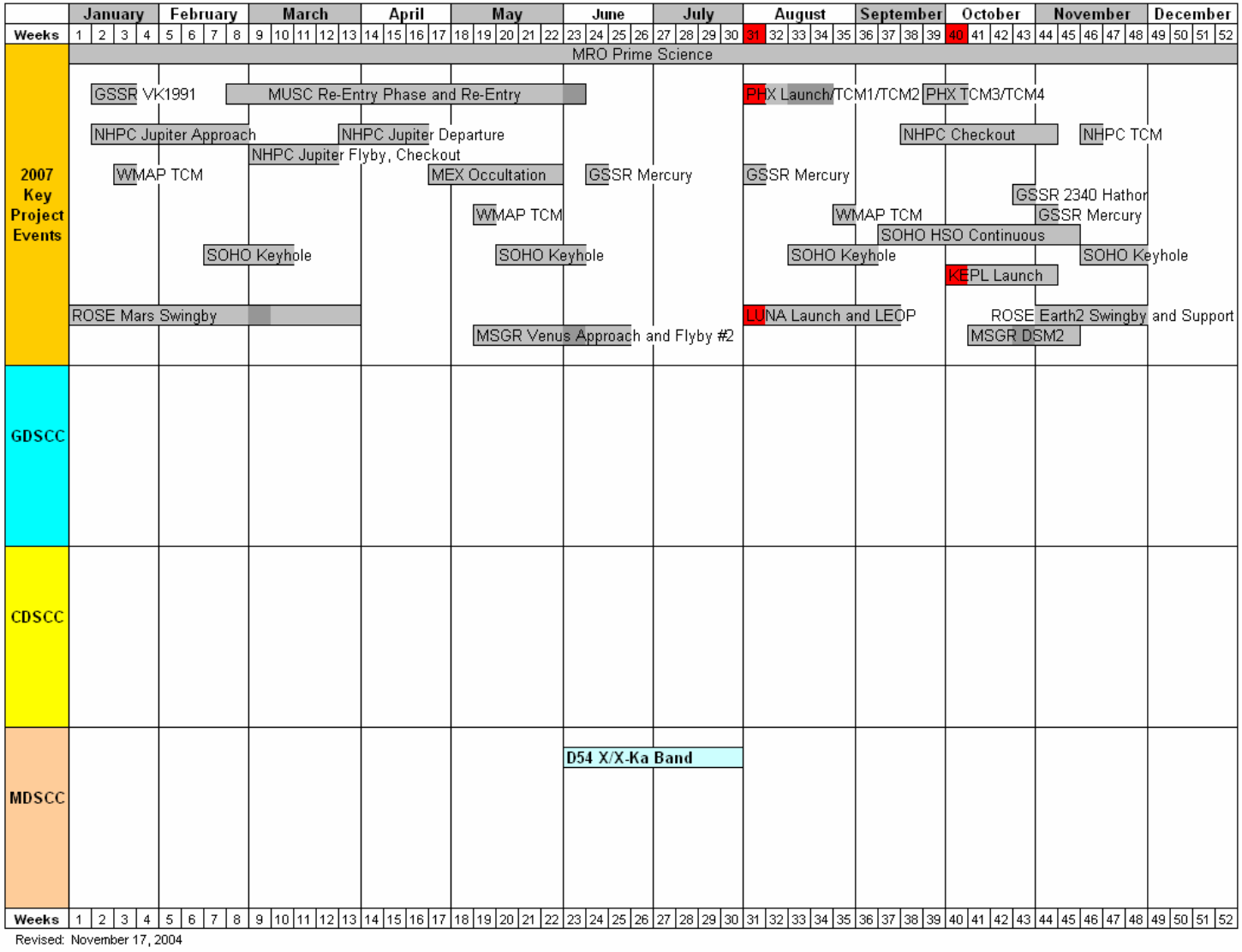
DSN Major Downtimes by Date

– 2007 –



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DSN Major Downtimes by Date

– 2008 –

Site	Description	Start	End	Duration (days)	Week(s)	Start DOY	End DOY
	None						

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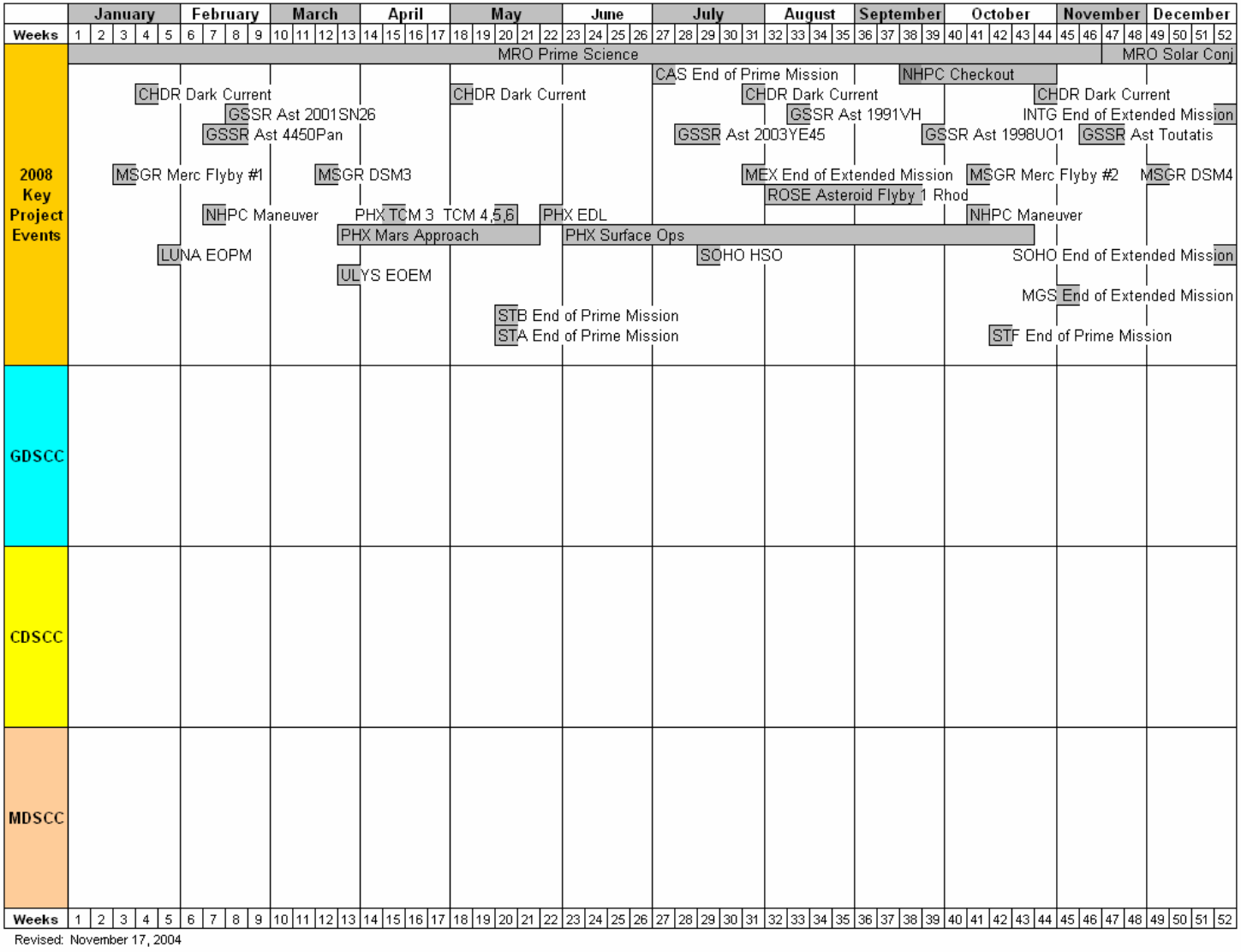
DSN Major Downtimes by Date

– 2008 –



Revised: November 17, 2004

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IND Resource Implementation Planning Matrix

Complex	Station	Subnet	S-Band Down	S-Band Up	X-Band Down	X-Band Up	Ka-Band Down	Ka-Band Up	NSP
10	DSS-14	70M	✔	✔	✔	✔	N/A	N/A	✔
10	DSS-15	34HEF	✔	N/A	✔	✔	TBD	N/A	✔
10	DSS-16	26M	✔	✔	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✔	✔	✔	✔	10/23/06	N/A	✔
10	DSS-25	34B2	N/A	N/A	✔	✔	✔	✔	✔
10	DSS-26	34B2	N/A	N/A	✔	✔	✔	N/A	✔
10	DSS-27	34HSB	✔	✔	N/A	N/A	N/A	N/A	N/A
40	DSS-34	34B1	✔	✔	✔	✔	04/25/05	N/A	✔
40	DSS-43	70M	✔	✔	✔	✔	N/A	N/A	✔
40	DSS-45	34HEF	✔	N/A	✔	✔	TBD	N/A	✔
40	DSS-46	26M	✔	✔	N/A	N/A	N/A	N/A	N/A
60	DSS-54	34B1	✔	✔	✔	✔	08/01/07	N/A	✔
60	DSS-55	34B2	N/A	N/A	✔	✔	✔	N/A	✔
60	DSS-63	70M	✔	✔	✔	✔	N/A	N/A	✔
60	DSS-65	34HEF	✔	N/A	✔	✔	TBD	N/A	✔
60	DSS-66	26M	✔	✔	N/A	N/A	N/A	N/A	N/A

N/A = Capability Not Planned

xx/xx/xx = Capability Date Recently Change

As of: 02/02/05

✔ ✔ ✔ = Capability Recently Exists

✔ = Capability Exists

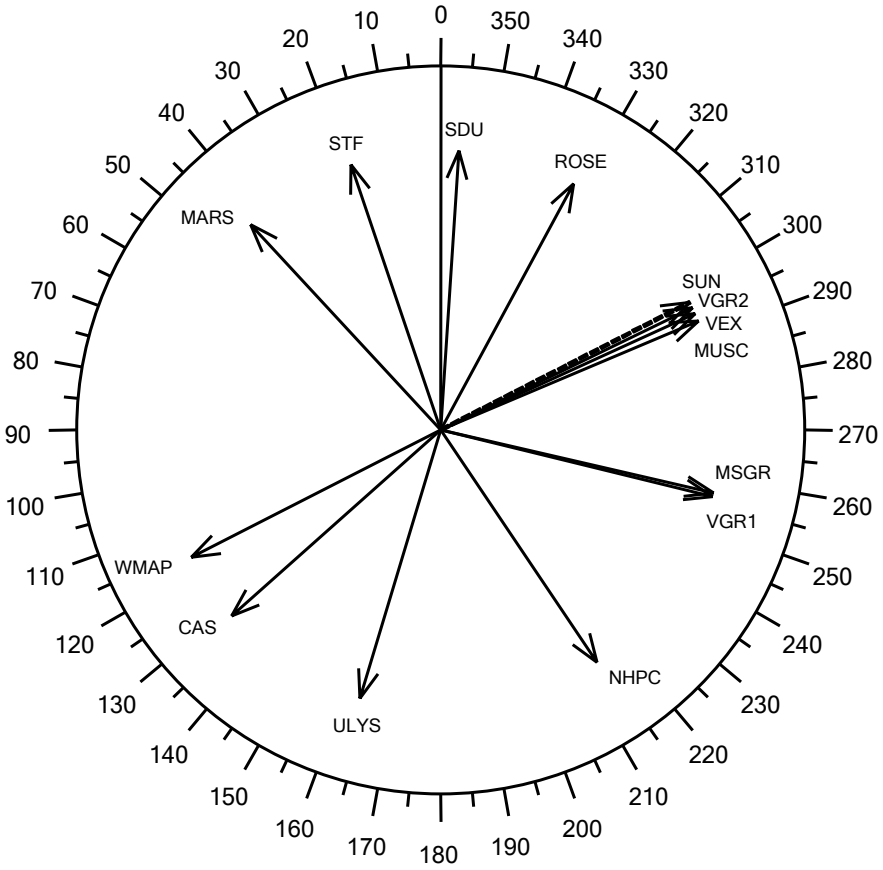
Periods of Contention

RFC	Remaining contentions to be resolved in JURAP and Mid-Range Scheduling
None	Remaining contentions to be resolved in RARB
All	Green text denotes months with resolved contentions and will not be discussed

Month	Weeks		
	2006	2007	2008
January	01 – 04	01 – 04	01 – 05
February	05 – 08	05 – 08	06 – 09
March	09 – 13	09 – 13	10 – 13
April	14 – 17	14 – 17	14 – 17
May	18 – 21	18 – 22	18 – 22
June	22 – 26	23 – 26	23 – 26
July	27 – 30	27 – 30	27 – 31
August	31 – 35	31 – 35	32 – 35
September	36 – 39	36 – 39	36 – 39
October	40 – 43	40 – 43	40 – 44
November	44 – 48	44 – 48	45 – 48
December	49 – 52	49 – 52	49 – 52

Spacecraft Right Ascension

January 15, 2006



THE SPACECRAFT RIGHT ASCENSION FIGURES SHOW THE POSITIONS OF THE SPACECRAFT IN THE SKY RELATIVE TO EACH OTEHR ON THE 15TH OF EACH MONTH FOR THE YEAR INDICATED. RIGHT ASCENSION IS COMMONLY MEASURED IN HOURS, WITH 1 HOUR = 15 DEGREES.

THE ARROW INDICATES THE CENTER OF A SPACECRAFT VIEW FROM EARTH. EXTEND 60 DEGREES ON BOTH SIDES OF THE ARROW TO CALCULATE AN EIGHT (8) HOUR VIEW PERIOD.

Events, Recommendations and Analyses

- The RARB Redbook makes reference to monthly contention as low, moderate, severe, and extreme. The explanation of these terms is listed below.
  - Projected unsupportable time is expressed as low, moderate, severe, or extreme in the Analysis sections of this document. Projected unsupportable time is an estimate of the amount of requested time, typically in percentage of requirements or modified requirements, that is unsupportable, based on resource availability, other users' requirements, assumed priorities, and view periods. The following percentages apply:

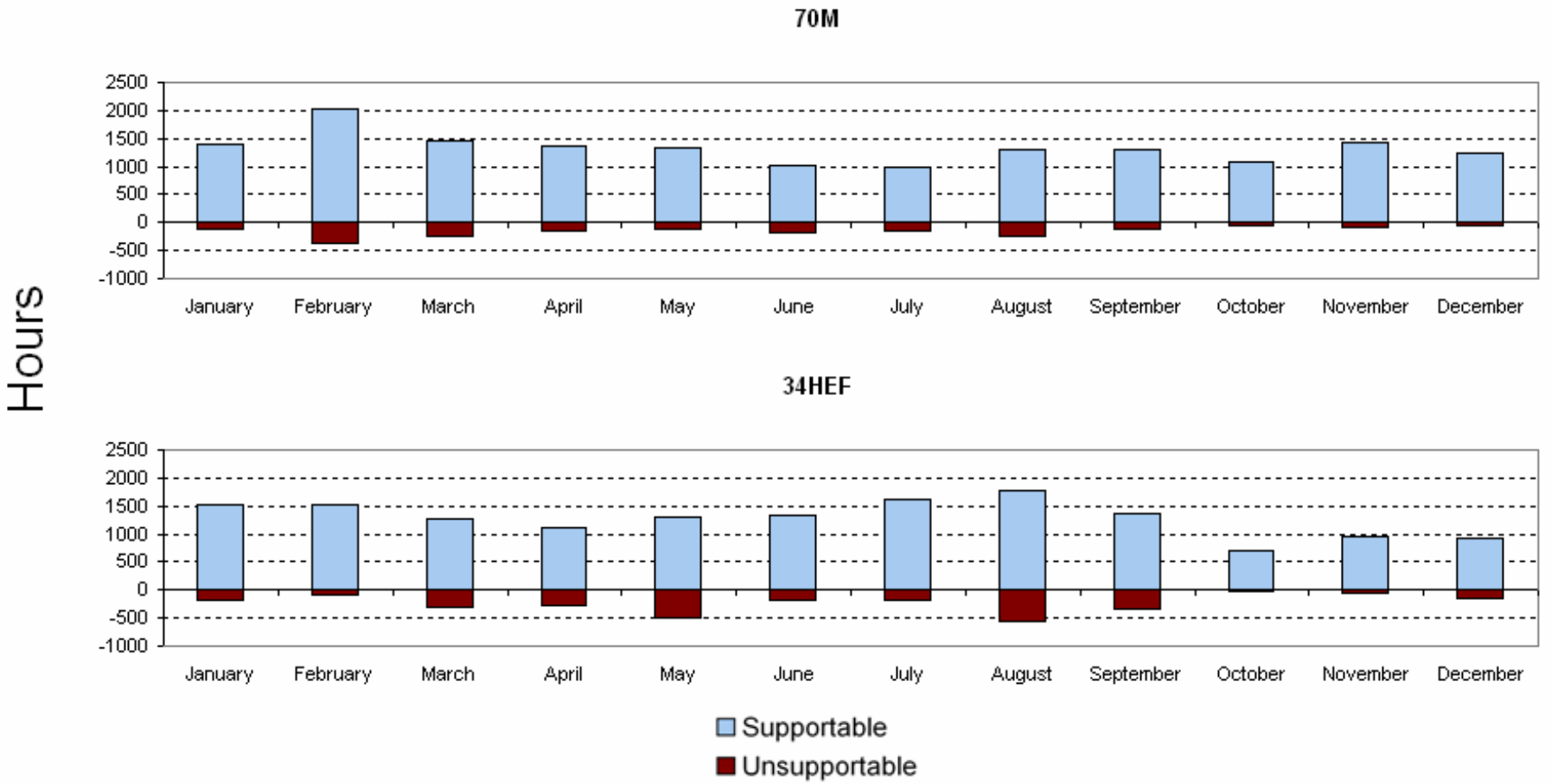
Low/Workable	= <15%
Moderate	= 15% to 30%
Severe	= 31% to 45%
Extreme	= >45%

Workable is a term used to express a condition wherein the projected unsupportable time is low. This condition occurs when the general forecasting analysis indicates a low percentage of unsupportable time or when RARB agreements have been made to reduce contention to a workable level. Workable essentially means that experience has shown that the remaining contention may be solved during final schedule preparations and negotiations.

2006 Events, Recommendations and Analyses

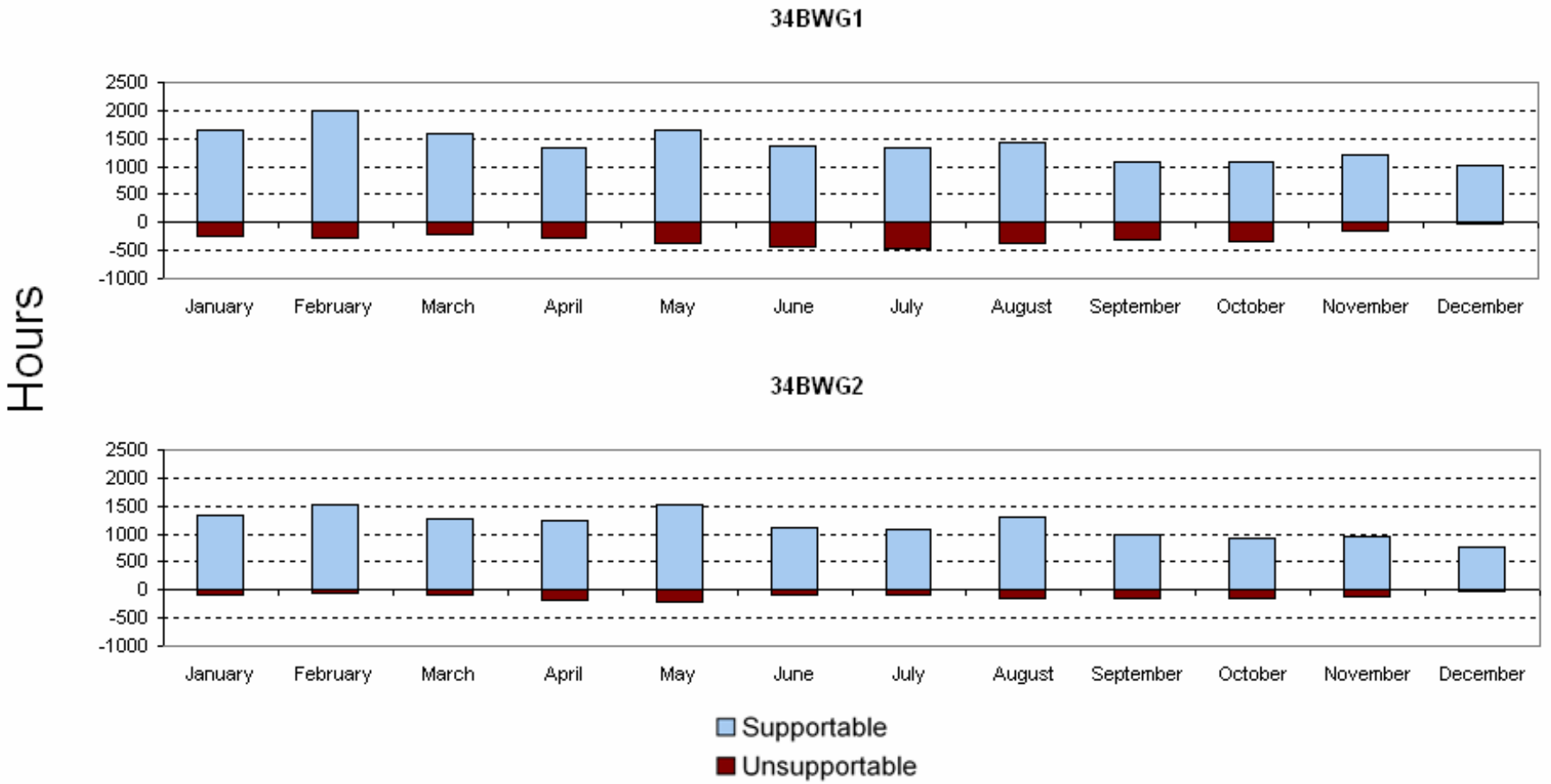
Events, Recommendations and Analyses

2006 Monthly Average User Unsupportable Time



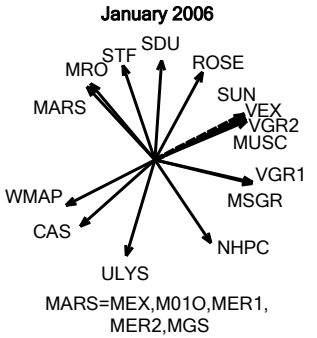
Events, Recommendations and Analyses

2006 Monthly Average User Unsupportable Time



Events, Recommendations and Analyses

2006 – January (Weeks 01 - 04)



EVENTS

Cassini Tour

Chandra Earth Eclipse in weeks 01 - 03

GSSR Lunar Pole Observation in week 02 at DSS-14/15 and Venus Radar Speckle Displacement (RSD) with Green Bank Telescope beginning in week 04

Hayabusa (MUSES-C) Delta DOR and TCM-3 beginning in week 04, DOY 023

Mars Odyssey THEMIS

Mars Express Orbital Science, Occultation and Bi-Static Radar

Mars Reconnaissance Orbiter TCM-3 in week 04, DOY 029, Cruise Ka-band, Approach, and Delta DOR

New Horizons Launch and Initial Acquisition in week 02, DOY 011, and LEOP beginning in week 02, DOY 011 – 029

Stardust TCM-18 – 20, Earth Re-entry on DOY 015, and post Earth return beginning in week 01

Wind TCM in week 01, DOY 008

Events, Recommendations and Analyses

2006 – January (Weeks 01 - 04) (continued)

RECOMMENDATIONS

☺ CAS Tour move 2 of 7 passes from the 34HEF to the 34BWG2 subnet in week 01 and move 2 of 5 passes from the 34HEF to the 34BWG2 subnet in week 02. (2,4) JDI

☺ CLU2 change resource request from DSS-16/27/24/15/14 to DSS-16/27/24 and delete 1 of 2 SSO supports in weeks 01 and 02 and delete 1 of 2 supports at DSS-46/34/45/43 in weeks 02 and 04. Move MSO support at DSS-16/27/24/15 from week 02 to week 01 and move MSO support at DSS-46/34/45/43 from week 04 to week 03. (1,2,3)

☺ DSS Maintenance delete DSS-45 maintenance in week 02 for NHPC Launch. (2)

☺ GSSR Lunar Pole Observation change support from DSS-14/15,25 to DSS-14/15/13 only in week 02. GSSR Venus RSD with GBT delete 2 of 3 supports in week 04. (4)

☺ MGS Mapping delete all standalone 10-hour supports at the 70M,34BWG1 in week 03 and at the 70M,34BWG2 in weeks 01 – 03. Add three 10-hour passes at the 34BWG1,34BWG2 subnets in weeks 01 – 03, add three 10-hour passes in week 04 at the 34BWG1 subnet and delete all 34HEF subnet 8-hour passes in weeks 01 – 03 (1 per week). (1,2,3,4)

☺ MSGR Cruise move 2 of 3 passes from DSS-26,34,55 to the 34HEF subnet in weeks 02 – 04. (3,4) JDI

Events, Recommendations and Analyses

2006 – January (Weeks 01 - 04) (continued)

RECOMMENDATIONS

Note:

SDU define setup requirements for all critical passes in support of Earth Return.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 01 and DSS-15\65 in week 02 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CLU2, CAS, MRO, NHPC, SDU, VGR1 and VGR2.

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 03 and at DSS-26\34 in week 04 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, MRO, MUSC, NHPC, SDU, VGR1 and VGR2.

Events, Recommendations and Analyses

2006 – January (Weeks 01 - 04) (continued)

ANALYSES

1. (70M) The projected unsupportable time for January is severe for DSS Bearing Maintenance in weeks 01 and 04 and moderate for the following projects and missions: DSS Maintenance and GSSR Venus RSD in week 04, MEX Orbital Science MSPA support with M01O mapping in weeks 01, 02, and 04 and for MGS mapping in weeks 01 – 03. The projected unsupportable time is due to DSS Maintenance, GSSR Venus RSD with GBT, M01O, MEX, and MGS view period overlap.

2. (34HEF) The projected unsupportable time ranges from moderate to severe. The projected unsupportable time is moderate for CLU2, SDU Earth entry and TCM in weeks 01 and 02 and VGR2 in weeks 01, 03 and 04. The unsupportable time is moderate to severe for DSS Maintenance in weeks 02 and 04, MGS in weeks 01 and 02, and severe for NHPC Launch and Initial Acquisition in week 02. The projected unsupportable time is due to NHPC Launch and Initial Acquisition simultaneous support in week 02, SDU Earth entry, dual TCM and backup TCM support in weeks 01 and 02 compounded by simultaneous 24-hour requirements for RFC and view period overlap in the Sun view period with DSS Maintenance, CAS, CLU2, MGS, MUSC, VGR1, VGR2 and a 100 percent view period overlap for MGS, MRO, SDU, STA, VGR1 and VGR2.

Events, Recommendations and Analyses

2006 – January (Weeks 01 - 04) (continued)

ANALYSES

3. (34BWG1) The projected unsupportable time ranges from moderate to extreme for this period. The projected unsupportable time is extreme for NHPC Launch and Initial Acquisition and Launch support in week 02 and moderate for ULYS, VGR2 and WIND in weeks 02 - 04. The projected unsupportable time is due to NHPC Launch and Initial Acquisition simultaneous support in week 02, SDU support for Earth entry, dual TCM and backup TCM supports in weeks 01 and 02 compounded by 26 hour support for RFC and view period overlap in the Sun view with DSS maintenance, CLU2, Mars missions, MSGR, ULYS,VGR1, VGR2 and WIND and a 100 percent view period overlap for MGS, MRO, SDU, STA, VGR1 and VGR2.

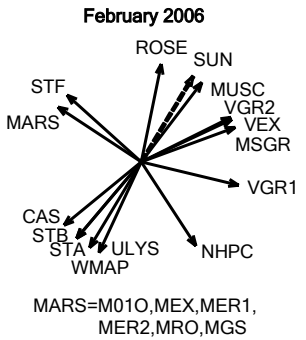
4. (34BWG2) The projected unsupportable time in this period is moderate to severe for DSS maintenance and moderate for MGS Mapping, SDU Earth entry and TCM in week 01, and VGR1 in week 04. The projected unsupportable time is due to Launch support for NHPC on week 02 and SDU Earth entry and dual TCM and backup support in weeks 01 and 02 compounded by RFC 26-hour supports and view period overlap in the Sun view with DSS maintenance, MSGR, and VGR1 and a 100 percent view period overlap for MGS, SDU and VGR1.

Contention levels on the 34HSB, and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – February (Weeks 05 - 08)



EVENTS

ATOT A01 Astrometry 24-hour semi-annual event in week 07 at DSS-43

Cassini Tour

EGS Global VLBI Quarterly Epoch beginning in weeks 07 – 08 at DSS-14\63 and

EVN J-M4 Quarterly Epoch beginning in week 08 at DSS-14\63

GSSR Lunar Pole in week 06 at DSS-14/15 and Venus RSD with Green Bank Telescope

Hayabusa (MUSES-C) TCM-3 and Delta DOR support ending in week 07

Mars Odyssey THEMIS

Mars Express End Of Prime Mission in week 06, DOY 042, Orbital Science, Occultation and Bi-Static Radar

Mars Reconnaissance Orbiter TCM-3 ending in week 05, Approach and Delta DOR

New Horizons Early Operations continuous support

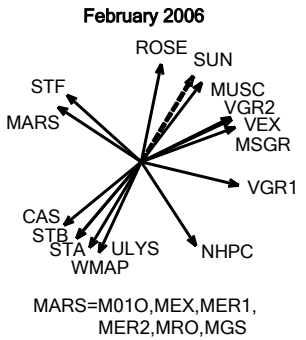
POLAR Maneuver DOY 032, Week 05

SOHO Keyhole event beginning in week 08, DOY 055

Stardust post Earth return and End Of Prime Mission in week 07, DOY 046

Events, Recommendations and Analyses

2006 – February (Weeks 05 - 08)



EVENTS

STEREO Ahead Launch and Initial Acquisition on DOY 042, Launch support beginning in week 06 and Maneuver support beginning in week 07

STEREO Behind Launch and Initial Acquisition on DOY 042, Launch support beginning in week 06 and Maneuver support beginning in week 07

Venus Express Cruise Delta DOR and Approach Phase beginning in week 06

Voyager 1 MAGROL in week 05, DOY 034

Events, Recommendations and Analyses

2006 – February (Weeks 05 - 08) (continued)

RECOMMENDATIONS

☺ ATOT A101 Astrometry move support from week 07 to week 05. (1)

☺ CLU2 SSO change from DSS-46/34/45/43 array support to DSS-46/45 in weeks 06 and 07. (Additional resources may be scheduled during final schedule preparation and negotiation in the Mid-range process.) (2,3)

☺ EGS EVN J-M4 delete one of two 8-hour supports in week 08; Global VLBI move one of two 8-hour supports from week 07 to week 10. (1)

☺ GSSR Lunar Pole delete support in week 06; Venus RSD with GBT delete 1 of 3 supports per week. (1)

☺ MGS Mapping delete one 8-hour standalone pass at DSS-15,25,65 in weeks 05 and 08 and delete one 8-hour standalone pass on the 34HEF in week 07. Move 10-hour standalone passes from the 34BWG2 to 34BWG1,34HEF as follows: 1 pass in week 05, 2 passes in week 07 and 2 passes in week 08. (2,4)

☺ MRO TCM move 6 passes from DSS-15,45,55,65 to DSS-15,43,65 in week 05. (2,4)

☺ MUSC Delta DOR East/West and North/South support, change all support allocations from DSS-25\65 and DSS-25\34 to DSS-26\65 and DSS-26\34 in weeks 05 – 07. (4) JDI

☺ NHPC Early Ops move all passes from the 34BWG2 subnet to 34BWG2,34HEF. (4)

Events, Recommendations and Analyses

2006 – February (Weeks 05 - 08) (continued)

RECOMMENDATIONS

☺ STA Backup Maneuver delete Canberra 34 meter support in weeks 07 – 08. (3)

☺ STB Backup Maneuver delete Canberra 34 meter support in weeks 07 – 08. (3)

☺ VGR1 delete all 4 to 8-hour routine passes and all weekly 2.5-hour uplink passes at the 70M. Add seven 6-hour passes at DSS-15,25,26,14; add seven 6-hour passes at DSS-55,65,63 and use 6-hour 70M passes for weekly uplink supports. (1,2,3,4)

☺ VGR2 reduce and modify all passes to 4 hours per day using DSS-43,34,45. Additional coverage will be added during final schedule preparation and negotiation in the Mid-Range plan. (1,2,3)

Note:

RFC CAT M&E S/X-Band simultaneous 24 hour supports at DSS-15/45 in week 05, and DSS-15/65 in week 06 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CLU2, CAS, MRO, MGS, NHPC, SDU, STB, VGR1 and VGR2.

Events, Recommendations and Analyses

2006 – February (Weeks 05 - 08) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to severe for DSS Routine and Bearing Maintenance, M01O Mapping and MSPA with MGS, STF and ULYS and moderate for EGS EVN and Global VLBI, GSSR Venus RSD and VGR1 and VGR2. The projected unsupportable time is due to oversubscription of the DSN in the Mars and Sun view periods and due to GSSR Venus view period overlap into the Mars and Sun view periods and is further compounded by ATOT and EGS 24-hour supports.

2. (34HEF) Moderate unsupportable time is projected for DSS Maintenance and MRO TCM support and extreme unsupportable time is projected for STA and STB Launch in week 06. The projected unsupportable time is due to Mars and Sun view period overlap compounded by NHPC Early Orbit Phase (EOP), STA and STB Launch and Initial Acquisition. It is further compounded by STA and STB dual supports for maneuvers and simultaneous 24-hour RFC supports.

3. (34BWG1) The projected unsupportable time is moderate to extreme for STA and STB Launch and maneuver supports in weeks 06 and 07 and moderate for WIND in week 05. The projected unsupportable time is due to DSS Maintenance (Sun view period) overlap with STA, STB and WIND view periods and is further compounded by NHPC EOP, STA and STB Launch and Initial Acquisition and dual support for maneuvers.

Events, Recommendations and Analyses

2006 – February (Weeks 05 - 08) (continued)

ANALYSES

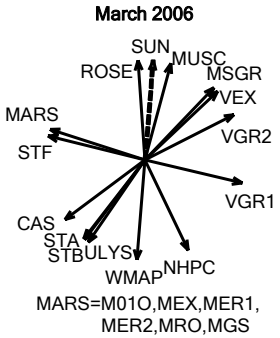
4. (34BWG2) The projected unsupportable time ranges from moderate to extreme for CAS, DSS Maintenance, MUSC, MGS, MRO, STA and STB (Launch, maneuver and phasing) and VGR1. The projected unsupportable time is due to oversubscription of the Sun, Mars and Saturn view periods, compounded by NHPC EOP, STA and STB Launch and dual maneuver support.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13)



EVENTS

Cassini Tour

Chandra Aspect Camera Assembly (ACA) Dark Current Measurement in week 10

EGS EVN J-M4 Quarterly Epoch ending in week 10 at DSS-14\63

GSSR Venus RSD with Green Bank Telescope ending in week 10 at DSS-14/15, Mercury Radar Random Long Code (RLC) with Arecibo and Asteroid 2000 PN9 in weeks 09 and 10

Mars Odyssey THEMIS

Mars Express Orbital Science, Occultation and Bi-Static Radar

Mars Reconnaissance Orbiter TCM-4 in week 09, DOY 059, TCM-5 and MOI in week 10, DOY 068 and 069, Approach ending in week 11, DOY 073, and Aerobraking continuous beginning in week 11, DOY 074

New Horizons Early Operations ending in week 10, DOY 067

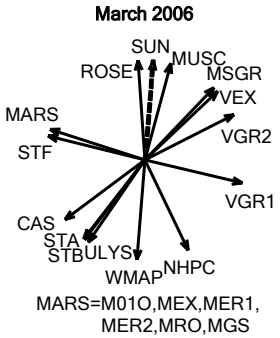
SOHO Keyhole event ending in week 11, DOY 078 and HSO continuous beginning in week 12

ST5 Launch in week 09, DOY 059, Phases A and B, and Special Operations

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13)



EVENTS

STEREO Ahead Maneuver and Phasing

STEREO Behind Maneuver and Phasing

Venus Express Approach and Delta DOR

Voyager 2 DTR Array P/B in week 10, DOY 068, ASCAL and MAGROL in week 11, DOY 072 and 075

Wilkinson Microwave Anisotropy Probe Maneuver in week 10

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13) (continued)

RECOMMENDATIONS

☺ CLU2 SSO change from DSS-16/27/24/15/14 to DSS-16/27/24/15 and change support from DSS-46/34/45/43 to DSS-46/34/45 in week 09. Change supports from DSS-16/27/24/15/14 to DSS-16/27/24 and from DSS-46/34/45/43 to DSS-46/34/43 in week 10. Change MSO support from DSS-16/27/24/15 to DSS-16/27/24 in week 10. (1,2)

☺ DSS Maintenance accommodate VGR2 DTR Playback on DOY 068 in week 10, ASCAL and MAGROL in week 11, DOY 072 and 075 at DSS-43. (1)

☺ EGS EVN J-M4 move one of two 8-hour supports from week 10 to week 09. (1)

☺ GSSR Mercury Arecibo delete support in week 09 and Venus RSD with GBT delete 2 supports in weeks 09 and 10. (1)

☺ M01O Mapping MSPA with MGS Mapping delete all four to seven 70M passes. Add 10-hour Mapping and MSPA with MGS passes as follows: 4 passes at DSS-43,63 in week 09 and 2 passes at DSS-14,63 in week 13. Add 8-hour Mapping and MSPA with MGS passes at DSS-43 as follows: 3 passes in week 10, 2 passes in week 11, 4 passes in week 12, and 5 passes in week 13.

☺ M01O THEMIS delete standalone passes in weeks 09 and 10 and move THEMIS passes from 70M to DSS-43,63 in week 11. Accommodate VGR2 DTR Playback on DOY 068 in week 10, ASCAL and MAGROL in week 11, DOY 072 and 075 at DSS-43.

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13) (continued)

RECOMMENDATIONS

☺ M01O MSPA with MGS Mapping as follows: 1 pass on the 34HEF and 2 passes on the 34BWG1 subnets in week 09, 3 passes on the 34BWG1 and 3 passes on the 34BWG2 subnets in week 10, 5 passes on the 34BWG1 and 5 passes on the 34BWG2 subnets in week 11, 6 passes on the 34BWG1 in week 12, and 6 passes on the 34BWG1 and 2 passes on the 70M,34BWG1 subnets in week 13. (1,2,3,4)

☺ MGS Mapping delete all standalone passes.

☺ MGS Mapping and MSPA with M01O Mapping delete all four to seven 70M passes. Add 10-hour Mapping and MSPA with M01O passes as follows: 4 passes at DSS-43,63 in week 09 and 2 passes at DSS-14,63 in week 13. Add 8-hour Mapping and MSPA with M01O passes at DSS-43 as follows: 3 passes in week 10, 2 passes in week 11, 4 passes in week 12, and 5 passes in week 13.

☺ MGS MSPA with M01O Mapping as follows: 1 pass on the 34HEF and 2 passes on the 34BWG1 subnets in week 09, 3 passes on the 34BWG1 and 3 passes on the 34BWG2 subnets in week 10, 5 passes on the 34BWG1 and 5 passes on the 34BWG2 subnets in week 11, 6 passes on the 34BWG1 in week 12, and 6 passes on the 34BWG1 and 2 passes on the 70M,34BWG1 subnets in week 13. (1,2,3,4)

☺ MRO move the 1 pass from DSS-15,34,55 to the 34HEF and move 3 of 8 passes from 34BWG2,DSS-34 to the 34HEF in week 10. Move Approach and Delta DOR passes from DSS-25 to DSS-26 in weeks 09 and 10. (2,3,4) JDI

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13) (continued)

RECOMMENDATIONS

☺ MSGR move the 3 passes from the 34HEF to the 34BWG1 subnet in week 10 and move all passes from DSS-26,34,55 to DSS-24,34,65. (3,4) JDI

☺ NHPC Early Ops move 3 passes from 34BWG1 to the 34HEF in week 10. (3) JDI

☺ STA Maneuver move 3 passes from DSS-25,34,55 to the 34BWG1 subnet in week 09 and delete backup maneuver support at DSS-24,45,65 in week 10, DOY 071. Move backup maneuver support from DSS-24,45,65 to DSS-24,65 in week 12, DOY 081. (2,3,4)

☺ STB Maneuver move 3 passes from DSS-26,45,54 to DSS-15,45,65 in weeks 09 and 10, move backup maneuver support from DSS-25,34,65 to DSS-24,65 in week 10, DOY 071 and delete backup maneuver support at DSS-25,34,65 in week 12, DOY 081. (2,3,4)

☺ VGR1 add two 6-hour passes at DSS-26 in week 10. Add one 6-hour pass at DSS-26, three 4-hour passes at DSS-15,24 and at DSS-54,65 in week 11. Delete five 4-hour passes at DSS-55 in week 10. Move seven 6-hour passes in week 12 and six 6-hour passes in week 13 from DSS-55 to DSS-55,65. (2,3,4)

☺ VGR2 move all passes from DSS-45 to DSS-43,45,34 in weeks 10 – 13. (1,2,3) JDI

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka-Band simultaneous 24 hour supports at DSS-24/34 in week 09 and DSS-24/54 in week 10 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, CLU2, IMAGE, MGS, MRO, MSGR, NHPC, SOHO, ST5, STA, STB, VEX, VGR1 and VGR2.

RFC CAT M&E S/X-Band simultaneous 24 hour supports at DSS-15/45 in week 11 and DSS-15/65 in week 12 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CLU2, CAS, MGS, MRO, MSGR, STB, VEX, VGR1 and VGR2.

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13) (continued)

ANALYSES

1. (70M) The projected unsupportable time for this period is moderate to extreme. The projected unsupportable time for DSS Routine and Bearing Maintenance is severe to extreme and moderate for CLU2, EGS, GSSR, SOHO Keyhole and STF. The projected unsupportable time for M01O Themis, M01O Mapping MSPA with MGS Mapping, MEX Orbital Science MSPA with M01O Mapping, and MRO MOI ranges from moderate to severe. Oversubscription in the Mars and Sun view periods causes severe unsupportable time for DSS Routine and Bearing Maintenance and for the Mars missions. The projected unsupportable time is further impacted by GSSR Venus Radar RSD with GBT, Asteroid 2000 PN9 and simultaneous EGS supports.

2. (34HEF) Moderate to severe unsupportable time is projected for CLU2 SSO, DSS Maintenance, MGS Mapping, MRO Approach, Aerobraking and TCM supports, SOHO Keyhole events, STA and STB maneuver and backup maneuver supports, VGR1 and VGR2 routine supports. Contention is primarily due to oversubscription and significant overlap in the Sun and Mars view period, compounded by 24-hour simultaneous RFC CAT M&E supports.

Events, Recommendations and Analyses

2006 – March (Weeks 09 - 13) (continued)

ANALYSES

3. (34BWG1) The projected unsupportable time is moderate to severe for CLU2, DSS Maintenance, MGS Mapping, MGS Mapping and MSPA with M01O Mapping, MRO Approach and Delta DOR, NHPC Early Ops, SOHO Keyhole events, ST5 Launch, phase A and B, and Special Ops supports, STA and STB Maneuver and backup support, and WIND routine support. The contention is due to oversubscription in the Mars and Sun view period and oversubscription of Canberra 34M antennas.

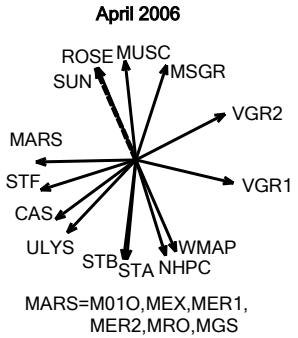
4. (34BWG2) The projected unsupportable time is moderate to severe for DSS Maintenance, MGS Mapping, MRO Approach, Delta DOR, Aerobraking and TCM, ST5 Launch and Phase A and B support, STB Maneuver and Phasing support and VGR1 routine support. The contention is due to oversubscription in the Mars and Sun view period compounded by 24-hour simultaneous RFC CAT M&E supports.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – April (Weeks 14 - 17)



EVENTS

ATOT A01 Imagery 24-hour semi-annual event in week 17 at DSS-43

Cassini Tour

GSSR Mercury Radar Observation in weeks 16 and 17

Mars Odyssey THEMIS ending in week 17

Mars Express Orbital Science, Occultation and Bi-Static Radar

Mars Reconnaissance Orbiter Aerobraking continuous

SOHO HSO continuous

STEREO Ahead Phasing, Lunar Swingby in week 14, DOY 98 and Maneuver in weeks 14 – 17

STEREO Behind Phasing, Lunar Swingby in week 14, DOY 98, Maneuver, and Prime Science beginning in week 14

ST5 Special Operations in week 15

Venus Express Approach, Delta DOR, Capture (VOI), TCM and End of Prime Mission in week 14, DOY 096

Voyager 1 DTR array P/B in week 17, DOY 117

Wind TCM in week 14, DOY 095

Events, Recommendations and Analyses

2006 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

☺ DSS Maintenance accommodate VGR1 DTR Array Playback on DOY 117 at DSS-14 in week 17. (1)

☺ M01O Mapping MSPA with MGS Mapping move 2 of 5 passes from the 70M to DSS-43, reduce pass duration from 10 hours to 8 hours and move 2 passes per week from DSS-14,63 to DSS-43,63. Reduce support to accommodate VGR1 DTR Array Playback on DOY 117 at DSS-14 in week 17. (1)

☺ MEX Orbital Science reduce support to accommodate VGR1 DTR Array Playback on DOY 117 at DSS-14 in week 17. (1)

☺ MGS Mapping MSPA with M01O Mapping move 2 of 5 passes from the 70M to DSS-43, reduce pass duration from 10 hours to 8 hours and move 2 passes per week from DSS-14,63 to DSS-43,63. MGS Mapping D/L move 6 of 12 passes from DSS-15,45,55 to the 34BWG1 subnet, move 4 of 6 passes to DSS-26,45,65 and move the remaining 2 passes to DSS-25,26,34,65 in week 14. Move 12 passes from DSS-15,45,55 to 34BWG2,34BWG1 in weeks 15 and 16 and move 4 of 8 passes from DSS-15,45,55 to 34BWG1 in week 17. Reduce support to accommodate VGR1 DTR Array Playback on DOY 117 at DSS-14 in week 17. (1,2,3,4)

☺ MSGR Cruise move all passes from the 34HEF subnet to DSS-24,34,65. (2) JDI

☺ ULYS move all passes from 34BWG1 to DSS-14,43. (3) JDI

Events, Recommendations and Analyses

2006 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

☺ VGR1 move all passes from DSS-26 to DSS-26,25 and reduce pass duration from 8 hours to 6 hours. Move all passes from DSS-55 to DSS-55,65 and reduce pass duration from 8 hours to 6 hours. Delete three 8-hour passes at DSS-24,54,15,65 in week 17 and add five 4-hour passes per week at DSS-63. (1,2,3,4)

Note:

RFC CAT M&E S/X 24-hour support at DSS-15/45 in week 17 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: MGS, MRO, MSGR, NHPC, ST5, STA, STB, VEX, and VGR1 and VGR2.

RFC CAT M&E X/Ka 24-hour support at DSS-26/55 in week 15 and at DSS-26/34 in week 16 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: MGS, MRO, MSGR, NHPC, ST5, STA, STB, VEX, and VGR1 and VGR2.

Events, Recommendations and Analyses

2006 – April (Weeks 14 - 17) (continued)

ANALYSES

1. (70M) The projected unsupportable time for this period is moderate for DSS Routine and Bearing Maintenance due to view period overlap between DSS Maintenance, CAS, GSSR Mercury, Mars missions, STF, VEX and VGR1.

2. (34HEF) The projected unsupportable time is severe for DSS Routine Maintenance in week 14 and moderate to extreme for MGS Mapping. The projected unsupportable time is due to Mars and Sun view period overlap compounded by the 24-hour simultaneous RFC CAT M&E VLBI supports.

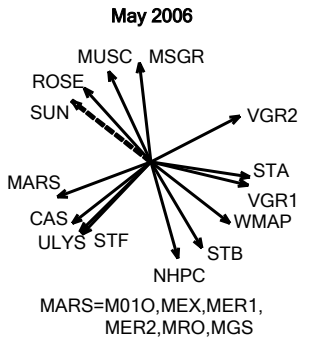
3. (34BWG2) The projected unsupportable time is moderate for DSS Routine Maintenance, moderate to severe for MGS Mapping and moderate for VEX Approach Delta DOR and VGR1 routine supports. The projected unsupportable time is due to Mars and Sun view period overlap.

The contention levels on the 34BWG1, 34HSB, and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – May (Weeks 18 - 21)



EVENTS

DSS-63 approved downtime (antenna controller replacement) beginning in week 21

Cassini Tour

GSSR Mercury Radar in week 19 and Lunar Pole Observations in week 20 at DSS-14/15

Mars Express Occultation ending in week 18, Orbital Science and Bi-Static Radar

Mars Reconnaissance Orbiter Aerobraking continuous

SOHO HSO continuous ending in week 20 and Keyhole event beginning in week 21

STEREO Ahead Maneuver in week 19, Lunar Swingby in week 20, DOY 136, Phasing ending in week 20 and Prime Science beginning in week 20

STEREO Behind Prime Science

Voyager 1 ASCAL and MAGROL in week 18, DOY 122 and 125

Events, Recommendations and Analyses

2006 – May (Weeks 18 - 21) (continued)

RECOMMENDATIONS

☺ M01O MSPA with MEX reduce support to accommodate VGR1 ASCAL and MAGROL on DOY 122 and 125 at DSS-14 in week 18. (1)

☺ MEX Orbital Science MSPA with M01O Mapping reduce support to accommodate VGR1 ASCAL and MAGROL on DOY 122 and 125 at DSS-14 in week 18. (1)

☺ MGS Mapping D/L move 6 of 16 passes from DSS-15,45,55 to the 34BWG2,34BWG1 subnet and move 5 of 10 passes to 70M in weeks 18 and 19. Move the remaining 5 passes in week 18 to the 34HEF subnet. Move 3 of the 5 passes in week 19 to DSS-26,45,65 and move the 2 remaining passes to the 34HEF subnet. (1,2,3) JDI

☺ ST5 Special Ops move the 4 passes from the 34BWG1 subnet to the BWG2,DSS-34 subnet in week 20. (2) JDI

☺ ULYS move all passes from DSS-24,34 to the DSS-14,43 in weeks 18 – 20. (2) JDI

☺ VGR1 move all 6-hour passes from DSS-26 to DSS-25,26 and all 6-hour passes at DSS-55 to DSS-55,65. (3) JDI

☺ VGR2 move 3 passes in week 18, 6 passes in weeks 19 and 20, and 4 passes in week 21 from DSS-43,34,45 to DSS-43,45. (2) JDI

Events, Recommendations and Analyses

2006 – May (Weeks 18 - 21) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E S/X 24-hour support at DSS-15/65 in week 18 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: MGS, MRO, MSGR, NHPC, ST5, STA, STB and VGR1 and VGR2.

RFC CAT M&E X/Ka 24-hour support at DSS-26\34 in week 21 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: MEX, MGS, MRO, MSGR, NHPC, ST5, STA, STB, and VGR1 and VGR2.

Events, Recommendations and Analyses

2006 – May (Weeks 18 - 21) (continued)

ANALYSES

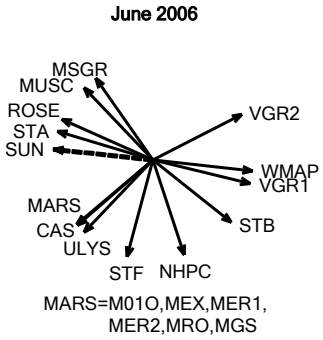
1. (34HEF) The projected unsupportable time is moderate to severe for DSS Maintenance and extreme for MGS Mapping D/L supports. The projected unsupportable time is attributed to the increase in MGS requirements and Mars and Sun view period overlap.
2. (34BWG1) The projected unsupportable time is moderate to severe for ST5 routine and Special Ops, STA Maneuver and Phasing and VGR2 routine support. The unsupportable time can be attributed to view period overlap and oversubscription of antenna resources at Canberra (DSS-34 and DSS-45).
3. (34BWG2) The projected unsupportable time is extreme for MGS Mapping D/L supports and moderate for VGR1 routine support. The unsupportable time can be attributed to view period overlap and oversubscription of 34BWG2 antenna resources in the Sun and Mars view periods.

Contention levels on the 70M, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – June (Weeks 22 - 26)



EVENTS

DSS-63 approved downtime (antenna controller replacement)

ATOT Mission 24-hour Event beginning in week 26

Chandra Earth Eclipse beginning in week 26

Cassini Tour

Dawn Launch and Initial Acquisition in week 24, DOY 168 and Launch support in weeks 25 and 26

EGS Global VLBI Quarterly Epoch in weeks 23 – 24 at DSS-14\63

GSSR Asteroid 2004 DC in weeks 22 – 23, Lunar Pole Observations in week 25 at DSS-14/15 and Mercury Radar Observation in weeks 23 – 26

Mars Express Bi-Static Radar in week 24 and Orbital Science

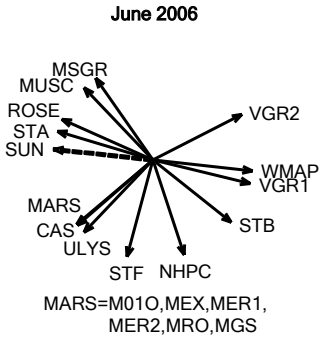
Mars Reconnaissance Orbiter Aerobraking continuous

SOHO Keyhole event ending in week 24, DOY 184

ST5 End of Prime Mission in week 23, DOY 162

Events, Recommendations and Analyses

2006 – June (Weeks 22 - 26)



EVENTS

STEREO Ahead Prime Science and SECCHI Campaign beginning in week 24

STEREO Behind Prime Science and SECCHI Campaign beginning in week 24

Voyager 2 MAGROL in week 24, DOY 167

Wilkinson Microwave Anisotropy Probe Maneuver in week 26

Events, Recommendations and Analyses

2006 – June (Weeks 22 - 26) (continued)

RECOMMENDATIONS

☺ CLU2 SSO change support from DSS-16/27/24/15/14 array to DSS-16/27/24 and from DSS-46/34/45/43 to DSS-46/34/43 in weeks 22 – 24. (1,2)

☺ M01O Mapping and MSPA with MGS Mapping reduce the pass duration of 4 to 5 passes from 12 hours to 10 hours and move from DSS-14 to DSS-14,43. Move 1 pass per week in weeks 23 – 25 and 2 passes in week 26 from DSS-43 to DSS-14,43 and increase pass duration from 8 hours to 10 hours. Delete the remaining 1 to 2 passes at DSS-43. MSPA 3 to 4 passes in week 22, 24 – 26 at the 34BWG2 and 1 to 2 passes at DSS-25,26 in weeks 23 and 25 – 26 with MGS Mapping D/L. (1,4)

☺ MGS Mapping and MSPA with M01O reduce the pass duration of 4 to 5 passes from 12 hours to 10 hours and move passes from DSS-14 to DSS-14,43. Move 1 pass per week in weeks 23 – 25 and 2 passes in week 26 from DSS-43 to DSS-14,43 and increase pass duration from 8 hours to 10 hours. Delete the remaining 1 to 2 passes at DSS-43. Move 3 passes in week 22 from the 34BWG1 subnet and 4 passes in weeks 24 – 26 from DSS-15,45,55 to the 34BWG2 subnet and MSPA with M01O Mapping. Move 2 passes in week 23, 1 to 2 passes in weeks 25 and 26 from the 34BWG1 subnet to DSS-25,26 and MSPA with M01O Mapping. (1,3,4)

☺ STA Prime Science move 2 of 7 passes from the 34HEF to DSS-15,65,34 and move the remaining 5 passes to DSS-25,34,55 in weeks 25 and 26. (2,3,4) JDI

☺ STB Prime Science move 4 of 7 passes from DSS-26,34,54 to the 34HEF in week 26. (2,3,4) JDI

Events, Recommendations and Analyses

2006 – June (Weeks 22 - 26) (continued)

RECOMMENDATIONS

☺ ULYS move 3 to 4 of 7 passes from DSS-43 to DSS-14,43 in weeks 22 and 24 – 26 and move 2 of the remaining 4 passes to DSS-24 in weeks 24 and 25. Move 3 of 7 passes from DSS-24,34 to DSS-14,43 and move 2 of the remaining 4 passes to DSS-24 in week 23. (1,3) JDI

☺ VGR1 move all passes from DSS-55 to DSS-55,65 in weeks 22 and 24. Move all passes from DSS-55 to DSS-65 in week 23. (2,4) JDI

☺ VGR2 delete all 6 to 8 hour routine passes at DSS-43, DSS-43,45 and at DSS-43,34 and add three to four 6-hour passes at DSS-43,45,34. (1,2,3) JDI

Note:

RFC CAT M&E S/X 24-hour support at DSS-15\45 in week 24 and DSS-15\65 in week 25 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, MGS, MRO, MSGR, SOHO, STA, STB, VGR1 and VGR2.

RFC CAT M&E X/Ka 24-hour support at DSS-26\34 in week 22 will require accommodation from the following projects/users directly or indirectly during the orbital Mid-Range Scheduling negotiation process: CAS, CLU2, CHDR, IMAG, M01O, MEX, MGS, MRO, MSGR, NHPC, STA, STB, ULYS, VGR1, VGR2 and WIND.

Events, Recommendations and Analyses

2006 – June (Weeks 22 - 26) (continued)

ANALYSES

1. (70M) The projected unsupportable time ranges from moderate to extreme. The unsupportable time is moderate to severe for DSS Routine and Bearing Maintenance and M01O Mapping and MSPA with MGS Mapping in all weeks and extreme for GSSR Asteroid 2004 DC in week 23. The unsupportable time is moderate for SOHO Keyhole events in weeks 22 and 23, STF, ULYS, and VGR2 routine supports. The projected unsupportable time is due to view period overlap in the Mars and Sun view period and oversubscription at DSS-14.

2. (34HEF) Moderate to extreme unsupportable time is projected for DSS Maintenance; Moderate to severe for DAWN Launch and Launch support in week 24; moderate for CLU2 SSO, MSGR Cruise, SOHO Keyhole events, STA Prime Science, and VGR2. The projected unsupportable time is due to view period overlap in the Sun view period compounded by DAWN Launch supports and RFC CAT M&E simultaneous 24 hour requirements.

3. (34BWG1) The projected unsupportable time is moderate to severe for DSS Maintenance, ULYS in week 23, and WIND and moderate for NHPC Cruise, SOHO Keyhole events, STA Prime Science and VGR2 routine supports. The projected unsupportable time is due to view period overlap in the Sun view period.

Events, Recommendations and Analyses

2006 – June (Weeks 22 - 26) (continued)

ANALYSES

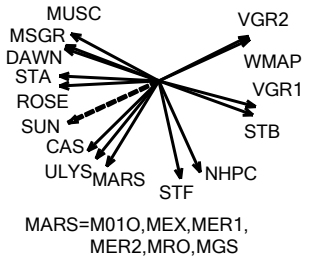
4. (34BWG2) Moderate unsupportable time is projected for DSS-Maintenance, MGS Mapping D/L, STB Prime Science and SECCHI Campaign, and for VGR1 routine supports. The projected unsupportable time is due to view period overlap in the Sun and Mars view period.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – July (Weeks 27 - 30)



EVENTS

DSS-63 approved downtime (antenna controller replacement)

Cassini Tour

Chandra Earth Eclipse ending in week 28 and ACA Dark Current Measurement in week 27

Dawn Launch support ending in week 27

GSSR Mercury RSD with Green Bank Telescope, Mercury Radar, and Mercury Radar RLC with Arecibo Observations

Hayabusa (MUSES-C) Delta DOR and TCM-4 beginning in week 30

Mars Express Bi-Static Radar in week 28 and Orbital Science

Mars Reconnaissance Orbiter Aerobraking continuous

STEREO Ahead Prime Science and SECCHI Campaign ending in week 28

STEREO Behind Prime Science and SECCHI Campaign ending in week 28

Wind TCM in week 27, DOY 186

Events, Recommendations and Analyses

2006 – July (Weeks 27 - 30) (continued)

RECOMMENDATIONS

☺ CLU2 SSO change support from DSS-16/27/24/15/14 to DSS-16/27/24/14 and from DSS-46/34/45/43 to DSS-46/34/43 in week 27. (2)

☺ GSSR Mercury RSD with GBT delete 3 of 5 supports in week 27. (1)

☺ M01O Mapping and MSPA with MGS mapping move 4 of 5 passes from DSS-14 to DSS-43, reduce pass duration from 10 hours to 8 hours and delete the remaining 1 pass at DSS-43. MSPA 3 passes at the 34BWG1 and 6 passes at 34BWG2 subnet with MGS Mapping D/L in week 27. Move 2 MSPA passes with MGS Mapping D/L from the 34BWG1 to DSS-14,43 in weeks 29 and 30. (1)

☺ MGS Mapping and MSPA with M01O move 4 of 5 passes from DSS-14 to DSS-43, reduce all pass duration from 10 hours to 8 hours and delete the remaining 1 pass at DSS-43 in week 27.

☺ MGS Mapping D/L move 6 standalone passes from DSS-15,45,55 to the 34BWG2 subnet and MSPA with M01O Mapping in week 27. MSPA 3 Mapping D/L passes with M01O Mapping on the 34BWG1 subnet in week 27. Move 4 of 10 Mapping D/L passes from DSS-15,45,55 to the 34BWG1,34BWG2 subnets, move 4 of the remaining 6 passes to the 34BWG2 and move the remaining 2 passes to DSS-25,26,34,65 in week 28. Move 5 of 11 Mapping D/L passes from DSS-15,45,55 to 34BWG1 in week 29. Move 5 of 10 Mapping D/L passes from DSS-15,45,55 to 34BWG1 and move the remaining 5 passes to 34BWG1,34BWG2 in week 30. Move the 2 MSPA with M01O Mapping passes from the 34BWG1 subnet to DSS-14,43 in weeks 29 and 30. (1,2,3)

Events, Recommendations and Analyses

2006 – July (Weeks 27 - 30) (continued)

RECOMMENDATIONS

☺ MRO Aerobraking move 4 passes from 34HEF to DSS-25,26,34,54, move 12 of 14 passes from DSS-15,45,55 to 34HEF,34BWG2 and move the remaining 2 passes to the 34BWG1 subnet in week 27. (2,3) JDI

☺ MSGR Cruise move 2 of 3 passes from DSS-24,34,65 to DSS-26,55 and move the remaining pass to the 34HEF in week 27. (2,3) JDI

☺ STA Prime Science move 4 of 7 passes from DSS-25,34,55 to DSS-15,65,34 and move 3 SECCHI passes from DSS-25,34,55 to the 34BWG1 subnet in week 28. (2,3) JDI

☺ ULYS move 4 of 7 passes in week 27 and 3 of 7 passes in week 28 from DSS-43 to DSS-14,43 and move the remaining 3 to 4 passes to DSS-24,54 in weeks 27 and 28. (1) JDI

☺ VGR2 move 1 of 2 passes from DSS-34,45 to DSS-43 and move the remaining 1 pass to DSS-43,45,34 in week 27. Move 4 of 5 passes from DSS-43,34,45 to DSS-43 in week 28. (1,2,3) JDI

Events, Recommendations and Analyses

2006 – July (Weeks 27 - 30) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E S/X 24-hour support at DSS-15\45 in week 29 and DSS-15\65 in week 30 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, IMAG, MGS, MRO, MSGR, STB and VGR2.

RFC CAT M&E X/Ka 24-hour support at DSS-26\55 in week 27 and DSS-26\34 in week 28 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, CHDR, IMAG, M01O, MEX, MGS, MRO, MSGR, NHPC, STA, STB, VGR1, VGR2 and WIND.

Events, Recommendations and Analyses

2006 – July (Weeks 27 - 30) (continued)

ANALYSES

1. (70M) The projected unsupportable time ranges from moderate to extreme. The unsupportable time for DSS Routine and Bearing Maintenance is moderate to severe and moderate for GSSR Mercury RSD with GBT and STF in weeks 27 and 28. The unsupportable time for M01O Mapping and MSPA with MGS Mapping is moderate to extreme in weeks 27 and 28. The projected unsupportable time is due to view period overlap in the Mars and Sun view period and oversubscription at DSS-14.

2. (34HEF) Moderate to extreme unsupportable time is projected for DSS Maintenance and moderate for CLU2 SSO, MSGR Cruise, MGS Mapping and VGR2 in week 27. The projected unsupportable time is due to view period overlap in the Mars and Sun view period and oversubscription.

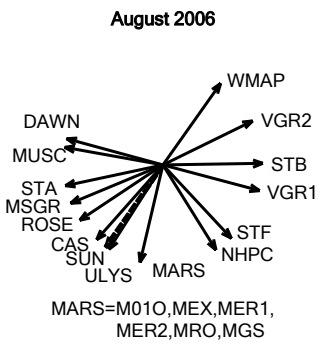
3. (34BWG1) Moderate is the projected unsupportable time for DSS Maintenance in week 27 and severe for Wind TCM support in week 27. The projected unsupportable time is due to view period overlap in the Mars and Sun view period and oversubscription.

Contention levels on the 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – August (Weeks 31 - 35)



EVENTS

DSS-63 approved downtime (antenna controller replacement) ending in week 35

Cassini Tour

GSSR Lunar Pole Observation in week 31 at DSS-14/15, Mercury RSD with Green Bank Telescope in week 32, with Arecibo in weeks 34 and 35, and Mercury Radar Observation in week 33

Hayabusa (MUSES-C) Delta DOR and TCM-4 ending in week 33

Mars Express Bi-Static Radar in week 33 and Orbital Science

Mars Reconnaissance Orbiter Aerobraking continuous

Rosetta Delta DOR test in weeks 32 – 33 and Mars Swingby (Gravity Assist) beginning in week 35, on DOY 240

SOHO Keyhole event beginning in week 34, DOY 235

STEREO Ahead Prime Science

STEREO Behind Prime Science

Voyager 1 MAGROL in week 31, DOY 216

Events, Recommendations and Analyses

2006 – August (Weeks 31 - 35) (continued)

RECOMMENDATIONS

☺ GSSR Mercury RSD with Arecibo delete 1 of 4 passes at DSS-14 in week 35. (1)

☺ M01O Mapping MSPA with MGS Mapping delete four 10-hour passes at DSS-14 in weeks 32 – 35 and one 10-hour pass per week at DSS-14,43 in weeks 32,33 and 35. Add 8-hour passes at DSS-43 as follows: 3 in week 32, 1 in week 33 and 2 each in weeks 34 and 35. MSPA with MGS Mapping D/L on the 34BWG1: four 8-hour passes in week 31, five 8-hour passes in week 32, three 8-hour passes each in weeks 33 and 34 and one 8-hour pass in week 35. Reduce all MSPA Mapping passes with MGS Mapping on the 34BWG2 from 10 hours to 8 hours. MSPA with MGS Mapping D/L at DSS-25,26: four 8-hour passes in weeks 31 – 34 and six 8-hour passes in week 35. (1,2,3,4)

☺ MGS Mapping MSPA with M01O Mapping delete four 10-hour passes at DSS-14 in weeks 32 – 35 and delete one 10-hour pass per week at DSS-14,43 in weeks 32,33 and 35. Add 8-hour passes at DSS-43 as follows: 3 in week 32, 1 in week 33 and 2 each in weeks 34 and 35. Delete all standalone Mapping D/L passes at DSS-15,45,55 and MSPA with M01O on the 34BWG1: four 8-hour passes in week 31, five 8-hour passes in week 32, three 8-hour passes in weeks 33 and 34 and one 8-hour pass in week 35. Reduce all Mapping MSPA passes with M01O Mapping on the 34BWG2 from 10 hours to 8 hours. Add four 8-hour Mapping D/L passes at DSS-25,26 in weeks 31 – 34 and add six 8-hour passes in week 35 and MSPA with M01O Mapping. (1,2,3,4)

Events, Recommendations and Analyses

2006 – August (Weeks 31 - 35) (continued)

RECOMMENDATIONS

☺ MSGR Cruise move 3 passes from the 34HEF subnet to the 34BWG1 subnet in weeks 32 and 35. (2) JDI

☺ ROSE Delta DOR Test move from week 33 to week 34. (1)

☺ SOHO Keyhole event move 3 of 6 passes from 70M/26M to 34H/26M and move the remaining 3 passes to the 34BWG1 in week 35. Move four of seven 9.6 hour passes from the 26M to DSS-27 in week 32. Move two 8-hour passes from the 26M to DSS-27,34BWG1 in week 33. (1) JDI

☺ STA Prime Science move 4 of 7 passes from the 34HEF to DSS-25,34,55 in weeks 31, 32, and 35 and move the remaining 3 passes in week 32 to DSS-15,65,34. (2) JDI

☺ ULYS delete all passes at DSS-43 and add four 5-hour passes per week at DSS-24,54. Add three 5-hour passes per week at DSS-43,34 in weeks 31 - 34 and three 5-hour passes at DSS-24,34 in week 35. (1,3) JDI

☺ VGR1 delete all passes at DSS-26 and at DSS-55. Add seven 4-hour passes at DSS-24,25,26,14 and seven 4-hour passes at DSS-54,65. (4) JDI

Events, Recommendations and Analyses

2006 – August (Weeks 31 - 35) (continued)

RECOMMENDATIONS

☺ VGR2 delete all routine passes and add four 6-hour routine passes per week at DSS-43,45,34. Add three 4-hour routine passes at DSS-43,45,34 in weeks 31 – 34 and at DSS-34,45 in week 35. (1,2,3)

Note:

RFC CAT M&E S/X 24-hour support at DSS-15\45 in week 29 and DSS-15\65 in week 30 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, M01O, MGS, MRO, MSGR, SOHO, STA, STB, VGR1 and VGR2.

RFC CAT M&E X/Ka 24-hour support at DSS-26\55 in week 33 and DSS-26\34 in week 34 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, CHDR, IMAG, M01O, MEX, MGS, MRO, MSGR, NHPC, ROSE, ULYS, VGR1, VGR2 and WIND.

Events, Recommendations and Analyses

2006 – August (Weeks 31 - 35) (continued)

ANALYSES

1. (70M) The projected unsupportable time for DSS Routine and Bearing Maintenance is severe to extreme, severe for M01O Mapping and MSPA with MGS Mapping, and moderate for GSSR Mercury RSD and GBT, MEX R/S Bi Static, ROSE Delta DOR Test, STF, ULYS and VGR1 MAGROL. The projected unsupportable time is due to oversubscription in the Sun view period and overlap with Mars missions compounded by the DSS-63 downtime.

2. (34HEF) Moderate to extreme unsupportable time is projected for DSS Maintenance severe to extreme for MRO Aerobraking, MGS Mapping D/L and SOHO Keyhole events, and moderate for MSGR Cruise, STA and STB Prime Science and VGR2 routine support. The unsupportable time is due to oversubscription in the Sun and Mars view period compounded by the simultaneous 24-hour RFC supports.

3. (34BWG1) Low to moderate is the projected unsupportable time for DSS Maintenance, ROSE Swingby, and SOHO Keyhole event. The projected unsupportable time is due to DSS Maintenance, ROSE, SOHO, ULYS, VGR2 and WIND (Sun and Mars) 100 percent view period overlap compounded by the simultaneous 24-hour RFC supports.

Events, Recommendations and Analyses

2006 – August (Weeks 31 - 35) (continued)

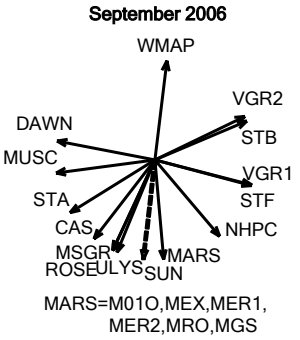
ANALYSES

4. (34BWG2) The projected unsupportable time for DSS Maintenance is severe for this period. Moderate to severe unsupportable time is projected for MGS Mapping D/L and MGS Mapping D/L MSPA with M01O and VGR1 routine. The projected unsupportable time is due over subscription in the Sun View period and view period overlap with Mars missions and VGR1 compounded by RFC 24-hour simultaneous supports.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39)



EVENTS

DSS-24 approved downtime (X/X-Ka band) beginning in week 36

ATOT A01 Astrometry 24-hour semi-annual event in week 36 at DSS-43

Cassini Tour

Geotail End of Extended Mission in week 39

GSSR Lunar Pole Observation in week 36 at DSS-14/15, Mercury Radar Observation in week 38 and Asteroid 2001 CB21 Observation beginning in week 39

Mars Express Bi-Static Radar in week 37, Orbital Science in weeks 36 and 37 and Solar Corona R/S beginning in week 38

Mars Reconnaissance Orbiter Aerobraking continuous ending in week 37, DOY 256, Transition to Prime Science and TCM beginning in week 37, DOY 257

MESSENGER Delta DOR beginning in week 39

New Horizons Delta DOR in weeks 37 and 38

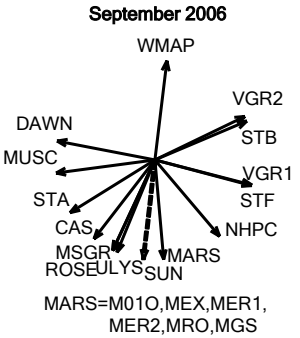
Polar End of Extended Mission in week 39

Rosetta Mars Swingby (Gravity Assist)

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39)



EVENTS

SOHO Keyhole Maneuver in week 36, DOY 248 and Keyhole event ending in week 37, DOY 259

STEREO Ahead Prime Science

STEREO Behind Prime Science

Voyager 1 End of Extended Mission in week 39

Voyager 2 DTR P/B in week 36, DOY 249, ASCAL and MAGROL in week 37, DOY 255 and 258 and End of Extended Mission in week 39

Wind End of Extended Mission week 39

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39) (continued)

RECOMMENDATIONS

☺ ACE Move 3 passes from DSS-16,66 to DSS-27 and add four 1-hour ranging passes at the 26M. JDI

☺ CAS Tour accommodate VGR2 DTR P/B in week 36 on DOY 249 and ASCAL on DOY 256. (1)

☺ CLU2 SSO change from DSS-46/34/45/43 to DSS-46/45/34 and from DSS-16/27/15/14 to DSS-16/27/15 in week 37. (1)

☺ DSS Maintenance at DSS-43 accommodate VGR2 DTR P/B in week 36 on DOY 249, ASCAL on DOY 256 and MAGROL on DOY 258 at DSS-43 in week 37. (1)

☺ M01O Mapping MSPA with MGS Mapping move 3 passes from 70M to DSS-14,63 in week 36. Move 3 of 5 passes from the 70M to 2 passes at DSS-14 and 1 pass at DSS-43 in week 37. Move 4 of 5 passes from the 70M to 2 passes each at DSS-63 and DSS-43 in weeks 38 and 39. Accommodate VGR2 DTR P/B in week 36 on DOY 249, ASCAL on DOY 256 and MAGROL on DOY 258 at DSS-43 in week 37. (1)

☺ MEX Orbital Science move passes from DSS-25,26 to DSS-25,26,65 and MSPA with MGS 5 passes in week 36 and 4 passes in week 37. MSPA with MGS 3 R/S Solar Corona passes at DSS-15,63 in weeks 38 and 39. MEX will have the uplink during all Solar Corona MSPA passes. (2,3,4)

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39) (continued)

RECOMMENDATIONS

☺ MGS Mapping MSPA with M01O Mapping move 3 passes from 70M to DSS-14,63 in week 36. Move 3 of 5 passes from the 70M to 2 passes at DSS-14 and 1 pass at DSS-43 in week 37. Move 4 of 5 passes from the 70M to 2 passes each at DSS-63 and DSS-43 in weeks 38 and 39. Accommodate VGR2 DTR P/B in week 36 on DOY 249, ASCAL on DOY 256 and MAGROL on DOY 258 at DSS-43 in week 37. Delete all standalone passes at DSS-15,45,55 in week 36, at the 34HEF in weeks 36, 38 and 39 and at the 34BWG1 in weeks 36 - 38. MSPA 5 passes in week 36 and 4 passes in week 37 with MEX Orbital Science at DSS-25,26,65. MSPA 3 passes with MEX R/S Solar Corona passes at DSS-15,63 in weeks 38 and 39. Maximize MSPA capability in week 38 to meet requirements. (1,2,3,4)

☺ MRO Aerobraking move 7 of 15 passes and 3 of 8 passes from DSS-15,45,55 to DSS-25,26,34,54 in weeks 36 and 37. Move Transition to Prime science passes from DSS-26,45,55 to DSS-26,34,55 in weeks 37 – 39. Accommodate DSS Maintenance at all 34M subnets. (2,4)

☺ MSGR Cruise move 1 of 3 passes and 2 of 5 passes from the 34BWG1 to DSS-26,45,65 and move the remaining 2 to 3 passes to DSS-26,55. (3) JDI

☺ NHPC Cruise move 3 passes in week 38 and 1 pass in week 39 from the 34HEF to DSS-34,54. (2) JDI

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39) (continued)

RECOMMENDATIONS

☺ SOHO move two 1.6-hour and seven of fourteen 1.6-hour passes from the 26M to DSS-27 in weeks 37 – 39. Move one 9.6-hour and four of seven 9.6-hour passes from the 26M to DSS-27 in weeks 37 – 39. JDI

☺ STA Prime Science move 3 of 7 passes from DSS-25,34,55 to DSS-26,45,54. (3,4) JDI

☺ STB Prime Science move 7 passes from the 34HEF to DSS-26,34,54 in week 36. (2) JDI

☺ ULYS move all passes from DSS-34,54 to the DSS-14,43 and reduce pass duration from 5 hours to 4 hours. (3) JDI

☺ VGR1 move seven 4-hour passes from DSS-25,26 to DSS-14 in week 36 and move all passes from DSS-55,65 to DSS-63,65. (2,4) JDI

☺ VGR2 delete six to seven routine 8-hour passes at DSS-43,45,34 and add one 6-hour pass at DSS-43,45,34 in weeks 36 and 39. (1,2,3)

Note:

RFC CAT M&E S/X 24-hour support at DSS-15\45 in week 36 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, MGS, MEX, MRO, MSGR, NHPC, SOHO, STA, STB, VGR1 and VGR2.

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka 24-hour support at DSS-26\34 in week 39 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, CHDR, IMAG, MEX, MGS, MRO, MSGR, NHPC, ROSE, ULYS, VGR1, VGR2 and WIND.

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate for DSS Routine and Bearing Maintenance, MEX R/S Solar Corona and Bi-static Radar, and VGR2 routine and ASCAL support. The projected unsupportable time is due to view period overlap in the Sun view period.

2. (34HEF) The projected unsupportable time ranges from moderate to extreme. The projected unsupportable time is extreme for DSS Maintenance, severe to extreme for MEX R/S, MGS Mapping D/L and in week 36 for MRO Aerobraking. The projected unsupportable time is moderate to severe for MEX Orbital Science, MRO Aerobraking and Transition to Prime Science, MSGR Cruise, NHPC Cruise, SOHO Keyhole, STB Prime Science and VGR2 routine support. The projected unsupportable time is due to view period overlap with the Sun view period and oversubscription in the Mars view period.

3. (34BWG1) Moderate to extreme unsupportable time is projected for DSS Maintenance and WIND, moderate to severe for MGS Mapping, MSGR Cruise, NHPC Cruise and Delta DOR, SOHO Keyhole, ULYS and VGR2 routine support. The projected unsupportable time is due to view period overlap in the Sun view period and oversubscription in the Mars view period.

Events, Recommendations and Analyses

2006 – September (Weeks 36 - 39) (continued)

ANALYSES

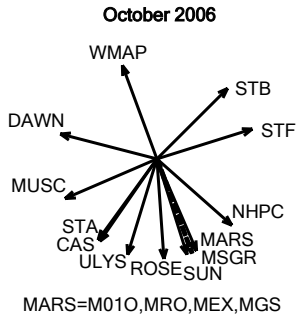
4. (34BWG2) The projected unsupportable time is extreme for DSS Maintenance, severe for MGS D/L in week 36, and moderate for MEX, MRO Transition to Prime Science and VGR1 routine support. The projected unsupportable time is due to view period overlap in the Sun view period and oversubscription in the Mars view period.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – October (Weeks 40 - 43)



EVENTS

DSS-24 approved downtime (X/X-Ka band) ending in week 42

DSS-45 approved downtime (antenna controller replacement) beginning in week 41

Cassini Tour

Chandra Lunar Eclipse in week 40

GSSR Asteroid 2001 CB21 Observation ending in week 40 and Lunar Pole Observation in week 43

Mars Express Bi-Static Radar in week 41 and Solar Corona R/S

Mars Reconnaissance Orbiter Transitioning to Prime Science ending in week 40, DOY 279 and Solar Conjunction beginning in week 40, DOY 280

MESSENGER Delta DOR ending in week 42, DOY 295

Rosetta Delta DOR in weeks 41 and 42 and Mars Swingby (Gravity Assist) ending in week 40 and beginning in 43

STEREO Ahead Prime Science

STEREO Behind Prime Science

Wilkinson Microwave Anisotropy Probe Maneuver in week 42

Events, Recommendations and Analyses

2006 – October (Weeks 40 - 43) (continued)

RECOMMENDATIONS

☺ ACE move one of six 3.5-hour passes from DSS-16,66 to DSS-27 in week 43. JDI

☺ CHDR move 7 of 21 passes from DSS-34,54 to the 26M and increase pass duration from 1 hour to 2 hours in week 43. (3)

☺ CLU2 SSO change from DSS-16/27/15/14 to DSS-16/27/15 in weeks 41 and 42. (1)

☺ M01O Mapping MSPA two 8-hour passes per week with MEX R/S Solar Corona at DSS-14,63. Delete 2 of 3 MSPA passes with MGS at the 34BWG2 subnet in week 40 and 2 of 4 passes in week 42. Delete 2 of 3 MSPA passes with MGS in weeks 41 and 43 at the 34HEF. Move 1 MSPA pass with MGS from DSS-26,55 to the 34BWG2 in week 42. Delete 3 MSPA passes with MGS at DSS-15,25,65 in week 42. (1,2,3)

☺ MEX R/S move Bi-Static Radar pass from week 41 to week 43. Change the four 8-hour Solar Corona standalone passes at DSS-14,63 to MSPA 2 passes per week with M01O Mapping and 2 passes per week with MGS Mapping and Beta Supplement. MEX will have the uplink during all Solar Corona MSPA passes. (1)

Events, Recommendations and Analyses

2006 – October (Weeks 40 - 43) (continued)

RECOMMENDATIONS

☺ MGS Mapping and Beta Supplement MSPA two 8-hour passes per week with MEX R/S Solar Corona at DSS-14,63. Delete 2 of 3 MSPA passes with M01O at the 34BWG2 subnet in week 40 and 2 of 4 passes in week 42. Delete 2 of 3 MSPA passes with M01O in weeks 41 and 43 at the 34HEF. Move 1 MSPA pass with M01O from DSS-26,55 to the 34BWG2 in week 42. Delete 3 MSPA passes with M01O at DSS-15,25,65 in week 42. Move 1 of 2 standalone passes from the 34HEF to the 34BWG2 in week 43. Add one 10-hour standalone pass at the 34BWG2 in week 41 and one 10-hour at the 34HEF in week 43. Delete the 4-hour passes in weeks 41 and 43. (1,2,3)

☺ MRO Solar Conjunction move 4 of 7 passes from DSS-25,34,55 to the 34HEF in week 43. Move the remaining 3 passes from DSS-25,34,55 and the 7 passes from DSS-26,34,65 to DSS-15,34,55,65 in week 43. (2,3)

☺ MSGR Cruise move 3 of 7 passes from DSS-26,34,55 to DSS-26,45,65 in weeks 41 and 42. Move the remaining 4 passes in week 41, 42 and 3 passes in week 43 from DSS-26,34,55 to DSS-26,55. (1,2,3)

☺ NHPC Cruise move all passes in weeks 40, 41, 43 and 5 of 6 passes in week 42 from DSS-34,54 to DSS-24,54. (3)

☺ ROSE Mars Swingby move 8 passes from DSS-15,54,24 to DSS-15,65 in week 41. Move 7 passes from DSS-15,54,24 to DSS-25,26,54 in week 43. (3)

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – October (Weeks 40 - 43) (continued)

RECOMMENDATIONS

☺ SOHO move four 1.6-hour passes from the 26M to DSS-27 in week 41 and move 1 of 15 TSO passes from the 26M,27 to DSS-27 in week 41. JDI

☺ STA Prime Science move 7 passes from DSS-25,34,55 to DSS-25,45,55 in weeks 42 and 43. (3) JDI

☺ STB Prime Science move 7 passes from DSS-26,34,54 to the 34HEF in weeks 41 and 42. (3) JDI

☺ ULYS move all passes from DSS-34,54 to DSS-34,43. JDI (View period at SPC-40 only)

Note:

RFC CAT M&E S/X 24-hour support at DSS-14\43 in week 41 and at DSS-15\65 in week 42 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, M01O, MGS, MEX, MRO, MSGR, NHPC, ROSE and WMAP.

ECH3 Ernestine Hampton, 1/6/2005

Events, Recommendations and Analyses

2006 – October (Weeks 40 - 43) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to severe for DSS Bearing Maintenance and moderate for MEX R/S Bi-static Radar and Solar Corona. The projected unsupportable time is due to oversubscription in the Mars view period, ULYS view period constraint (SPC 40 only), and Mars view period overlap with the Sun view period compounded by DSS-24 approved downtime ending in week 41 and DSS-45 approved downtime beginning in week 41.

2. (34HEF) Moderate unsupportable time is projected for DSS Maintenance, MGS Mapping, and MSGR Cruise in weeks 40 – 42. The projected unsupportable time is due to view period overlap with the Sun view period, DSS-24 approved downtime ending in week 41 and DSS-45 approved downtime beginning in week 41and ULYS view period constraint (SPC 40 only).

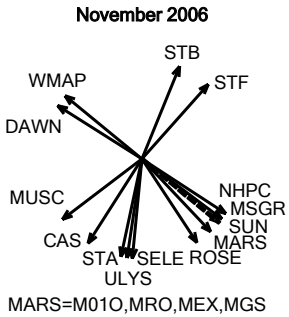
3. (34BWG1) Moderate to extreme unsupportable time is projected for DSS Maintenance, MGS Mapping, MRO Solar Conjunction, MSGR Cruise and Delta DOR, NHPC Cruise, and in week 41 for STA Prime Science. The projected unsupportable time is due to oversubscription at Canberra and view period overlap in the Sun view period compounded by DSS-24 approved downtime ending in week 41 and DSS-45 approved downtime beginning in week 41and ULYS view period constraint (SPC 40 only).

Contention levels on the 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – November (Weeks 44 - 48)



EVENTS

DSS-45 approved downtime (antenna controller replacement)

Cassini Tour

Chandra Lunar Eclipse in week 44, ACA Dark Current Measurement in week 45 and Leonid Observation in week 48

EGS EVN J-M4 in weeks 44 – 46 and Global VLBI Quarterly Epochs at DSS-14\63 in weeks 45 – 47

GSSR Lunar Pole Observation in week 45

Mars Express Bi-Static Radar in week 46 and Solar Corona R/S

Mars Reconnaissance Orbiter Solar Conjunction ending in week 45, DOY 310 and Ka-band Ops and Prime Science beginning in week 45

Rosetta Mars Swingby (Gravity Assist)

SELENE Launch, Initial Acquisition and LEOP in week 44, MOI in week 45 and end of LEOP in week 47

SOHO Keyhole event beginning in week 47, DOY 329

STEREO Ahead Prime Science

STEREO Behind Prime Science

Events, Recommendations and Analyses

2006 – November (Weeks 44 - 48) (continued)

RECOMMENDATIONS

☺ ACE delete all passes in week 45 and add seven 3.5-hour passes at DSS-27 and seven 1-hour ranging passes at the 26M in week 45. JDI

☺ CAS Tour move all passes from DSS-24,25,26,34,54,55 and from the 34HEF to the 34BWG2 subnet. (2,3)

☺ CHDR move 7 of 21 passes per week from the 34BWG1 subnet to the 26M. (3)

☺ CLU2 SSO change from DSS-16/27/34/15/14 to DSS-16/27/15 and change from DSS-46/34/43 to DSS-46/43 in weeks 44 – 46. (Additional resources may be scheduled during final schedule preparation and negotiation in the Mid-range process.) (1,2,3)

☺ DAWN Cruise move all passes from the 34HEF and from DSS-15,65 to the 34BWG2 subnet. (2)

☺ DSS Routine Maintenance reduce DSS-34 maintenance from 8 hours to 6 hours in weeks 44 and delete DSS-34 maintenance in week 45. Delete DSS-63 routine 6-hour maintenance support in weeks 44 and 48. Delete all DSS-14 routine 6-hour maintenance supports and add one 8-hour routine maintenance support per week. (1,3)

☺ EGS Calibration move support from week 45 to week 44. (1)

☺ GSSR Lunar Pole Radar change support from DSS-14/15,25 to DSS-14/13 in week 45. (2)

Events, Recommendations and Analyses

2006 – November (Weeks 44 - 48) (continued)

RECOMMENDATIONS

☺ M01O Mapping MSPA 1 additional 10-hour pass with MRO Prime Science at DSS-43 in week 46. (1)

☺ MEX Solar Corona MSPA all standalone passes with MGS Mapping and Beta Supplement at DSS-14,63. (2,3)

☺ MGS Mapping MSPA two to three 6-hour passes with MEX at DSS-14,63. MSPA with MEX one to three 6.5-hour passes at DSS-14,63 in weeks 46-48. MGS must maximize MSPA capability where ever possible to get their requested supports. (Conflicts remain with MRO and MGS) (2,3)

☺ MRO Ka Ops move 2 passes from DSS-24,34,55 to DSS-26,55 in weeks 46 and 47. Move 1 of 12 Prime Science passes from DSS-25,24,26,34,54,55 to DSS-43 and MSPA with M01O Mapping. Move 1of 11 remaining Prime Science passes from DSS-25,24,26,34,54,55 to DSS-34,43 in weeks 46 and move the remaining 10 passes to DSS-15,65 in week 46. Move 1 of 9 passes from DSS-25,24,26,34,54,55 to DSS-34,43 in weeks 47 and 48. Move all remaining passes from DSS-25,24,26,34,54,55 to DSS-15,65 in weeks 45, 47 and 48. Move Solar Conjunction passes from DSS-25,34,55 to DSS-15,43,65 in week 44 and to DSS-15,65 in week 45. (2,3,4)

☺ MSGR Cruise move all passes from DSS-26,34,55 to DSS-25,55 in weeks 45 – 47 and add one 4-hour pass at Canberra in week 46. (3)

Events, Recommendations and Analyses

2006 – November (Weeks 44 - 48) (continued)

RECOMMENDATIONS

☺ NHPC Cruise move all passes from DSS-15,65 to DSS-25,55 in weeks 44, 45, 47 and 48. (2)

☺ ROSE Mars Swingby move all passes from DSS-15,54,24 to DSS-25,26,55 in week 44. (3)

☺ SOHO move four 1.6-hour passes from 26M to DSS-27 and move 1 of 15 TSO passes from 26M to DSS-27 in week 45. JDI

☺ STA Prime Science move 7 passes from DSS-15,65,34 to DSS-25,34,55 in weeks 44 and 48. Move 7 passes from DSS-25,34,55 to DSS-25,45,55 in weeks 45 – 47. (2,3)

☺ STB Prime Science move 7 passes from the 34HEF to DSS-26,34,54 in week 44. (2)

☺ ULYS move all passes from DSS-34,54 to DSS-34,43 and reduce pass duration from 5 hours to 4 hours. (Three passes of shorter duration with uplink will be added during preparation of the Mid-range schedule if view period is available.) (3)

Events, Recommendations and Analyses

2006 – November (Weeks 44 - 48) (continued)

RECOMMENDATIONS

Note:

SELE Launch move from November 2006 to February or July 2007 (Refer to SELENE Launch Opportunity Evaluation Study Dated 11-29-04). (3)

RFC CAT M&E X/Ka 24-hour support at DSS-26\55 in week 45 and at DSS-26\34 in week 46 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, CLU2, IMAG, MGS, MRO, MSGR, NHPC, ROSE, SELENE, STA, STB and SOHO.

RFC CAT M&E S/X 24-hour support at DSS-14\43 in week 47 and at DSS-15\65 in week 48 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, M01O, MEX, MGS, MRO, MSGR, NHPC, ROSE and WMAP.

Events, Recommendations and Analyses

2006 – November (Weeks 44 - 48) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate for DSS Maintenance, MEX R/S Bi-Static Radar and Solar Corona and MEX R/S MSPA with M01O Mapping. The projected unsupportable time is due to Mars and Sun view period overlap, oversubscription at Canberra and is further compounded by ULYS view period constraint (SPC 40 only), the approved DSS-45 downtime and simultaneous 24-hour RFC CAT S/X support in week 47.

2. (34HEF) Moderate to severe unsupportable time is projected for DSS Maintenance, MGS Map/Beta Supplement and SOHO Keyhole event. The projected unsupportable time is due to significant overlap in the Mars and Sun view period, oversubscription at Canberra and is compounded by ULYS view period constraint (SPC 40 only), the approved DSS-45 downtime and simultaneous 24-hour RFC CAT S/X support in week 48.

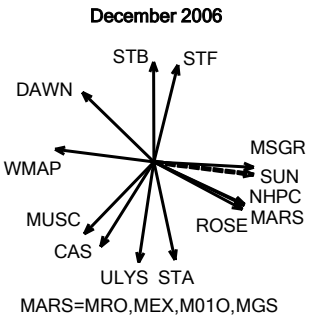
3. (34BWG1) Moderate to extreme unsupportable time is projected for CAS, CHDR, CLU2 SSO, IMAG, MGS Map/Beta Supplement, MRO Ka Ops and Prime Science, MSGR Cruise, SELE LEOP and MOI, SOHO Ranging, and STA Prime Science. The projected unsupportable time is due to significant overlap in the Mars and Sun view period, compounded by oversubscription in the Mars and Sun view period, oversubscription at Canberra, approved DSS-45 downtime and is further compounded by ULYS view period constraint (SPC 40 only) and simultaneous 24-hour RFC CAT X/Ka supports in weeks 45 and 46.

Contention levels on the 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2006 – December (Weeks 49 - 52)



EVENTS

DSS-45 approved downtime (antenna controller replacement) ending in week 49

ATOT A01 Imagery semi-annual event at DSS-43 in week 51

Cassini Tour

Chandra Earth Eclipse in week 52

GSSR Lunar Pole Observations in weeks 49 and 51

Mars Express Orbital Science and Bi-Static Radar in week 50

Mars Reconnaissance Orbiter Prime Science and Ka-band Operations Demo

Rosetta Mars Swingby (Gravity Assist)

SOHO Keyhole Maneuver in week 49, DOY 339 – 340 and Keyhole event ending in week 50

STEREO Ahead Prime Science

STEREO Behind Prime Science

Events, Recommendations and Analyses

2006 – December (Weeks 49 - 52) (continued)

RECOMMENDATIONS

☺ ACE move three 3.5-hour passes from DSS-16,66 to DSS-27, add one 1-hour ranging pass at DSS-46 and add two ranging passes at the 26M in week 49. JDI

☺ GSSR Lunar Pole Radar change support from DSS-14/15,25 to DSS-14/13 in weeks 49 and 51.

☺ MEX Orbital Science move 3 to 4 passes per week from DSS-65,15 to DSS-25,26,55 in weeks 50 – 52.

☺ MGS Mapping and Beta Supplement move all passes from DSS-15,25,65 and from DSS-25,26,65 to the 34BWG2 subnet. JDI

☺ MRO Prime Science move 3 to 6 passes per week from DSS-25,24,26,34,54,55 to 4 passes at DSS-24,25,54,55 in week 49; 4 passes in weeks 50 and 52 and 6 passes in week 51 at DSS-24,25,26,45,54,55. JDI

☺ MSGR Cruise move 2 passes in week 49 and 1 pass in week 52 from DSS-26,25,55 to DSS-15,65. Move all passes from DSS-26,45,65 to DSS-25,26,45,65. JDI

☺ NHPC Cruise move 2 passes from the 34HEF subnet to DSS-25,55 in week 49. JDI

Events, Recommendations and Analyses

2006 – December (Weeks 49 - 52) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E S/X 24-hour support at DSS-15\45 in week 51 and at DSS-15\65 in week 52 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, MEX, MGS, MRO, NHPC, ROSE, SOHO and STA.

RFC CAT M&E X/Ka 24-hour support at DSS-26\55 in week 51 and at DSS-26\34 in week 52 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, CLU2, IMAG, MGS, MRO, MSGR, NHPC, ROSE, STA, STB and SOHO.

Events, Recommendations and Analyses

2006 – December (Weeks 49 - 52) (continued)

ANALYSES

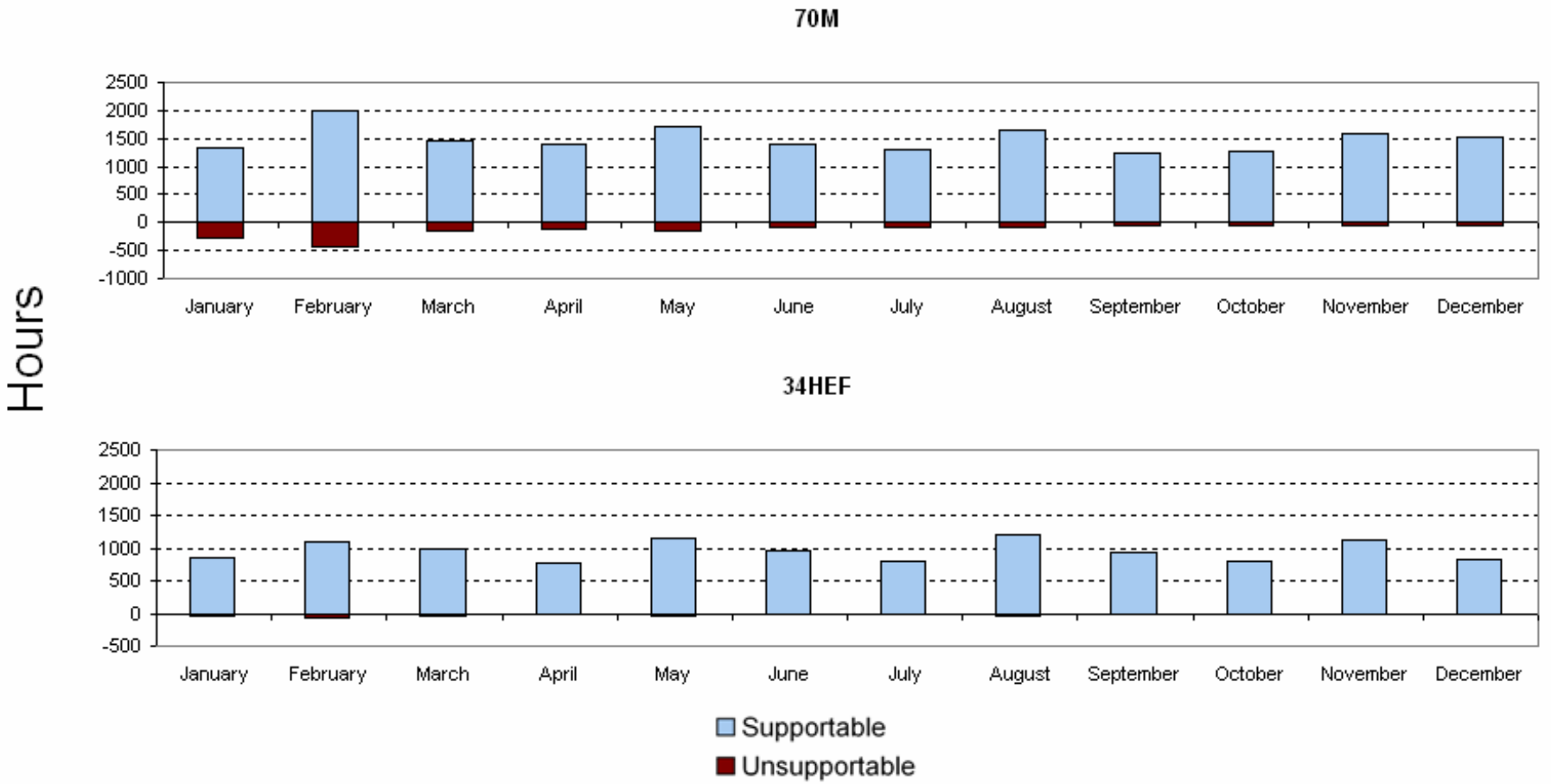
(34HEF) Moderate to severe unsupportable time is projected for DSS Maintenance, GSSR Lunar Pole Radar, MEX Orbital Science, MGS Map/Beta Supplement, MRO Prime Science MSP with MGS Map/Beta Supplement and NHPC Cruise. The unsupportable time is due to oversubscription in the Mars view period and Mars view period overlap with Sun view period.

Contention levels on the 70M, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

2007 Events, Recommendations and Analyses

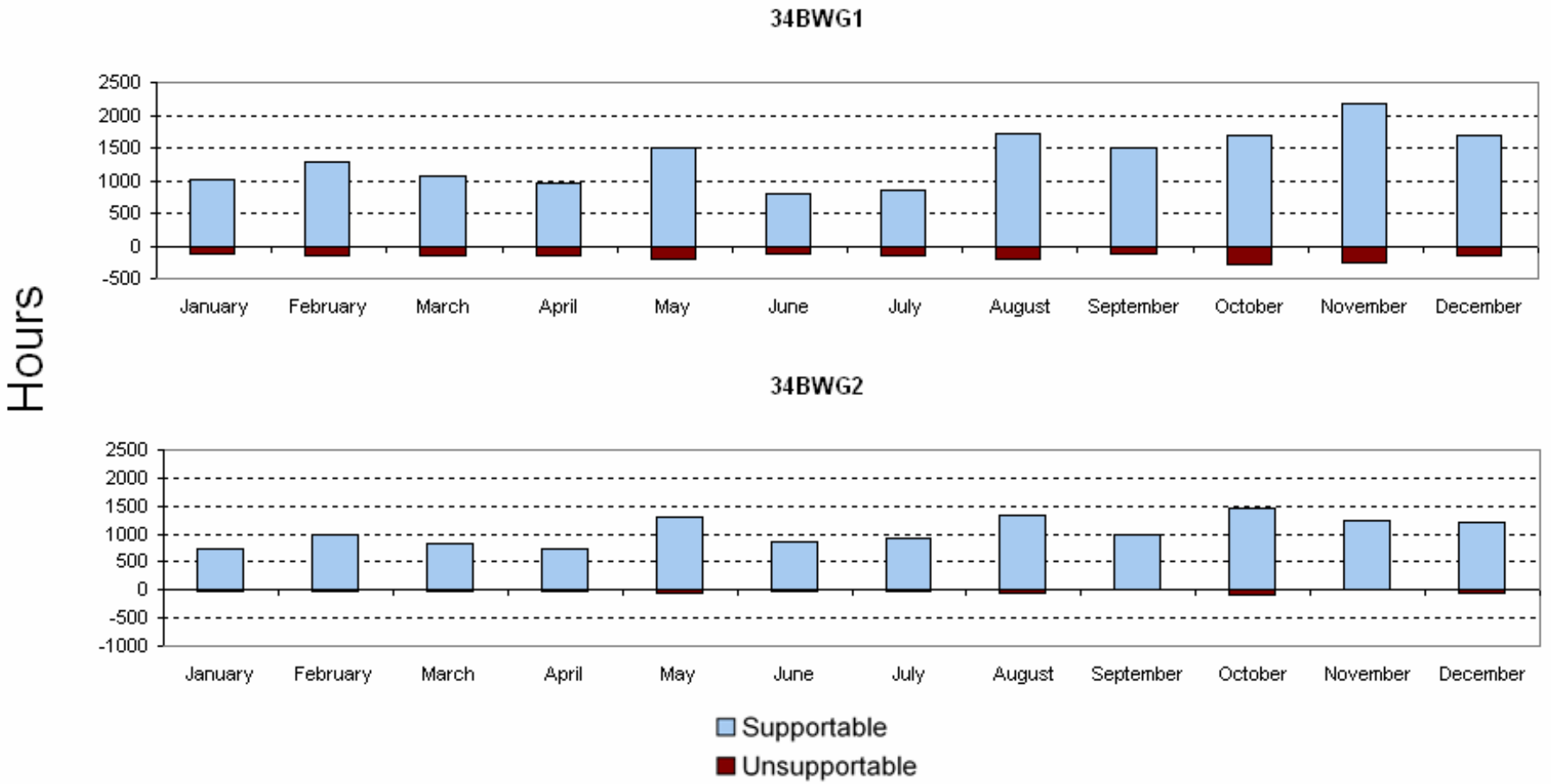
Events, Recommendations and Analyses

2007 Monthly Average User Unsupportable Time



Events, Recommendations and Analyses

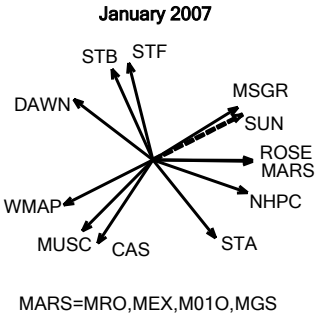
2007 Monthly Average User Unsupportable Time



Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – January (Weeks 01 - 04)



MARS=MRO,MEX,M01O,MGS

EVENTS

Cassini Tour

Chandra Earth Eclipse in weeks 01 and 02

GSSR Asteroid 1991 VK Observations in weeks 02 and 03

Mars Express Bi-Static Radar in week 03 and Orbital Science

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Jupiter Approach beginning in week 01

Rosetta Mars Swingby

STEREO Ahead Prime Science

STEREO Behind Prime Science

Events, Recommendations and Analyses

2007 – January (Weeks 01 - 04) (continued)

RECOMMENDATIONS

☺ CAS Tour move 1 of 2 passes from DSS-14 to DSS-63 on DOY 012 of week 02. (1)

☺ CLU2 SSO change supports from DSS-16/27/24/15/14 to DSS-16/27/24/15. (1)

☺ GSSR Asteroid 1991 VK reduce support duration from 5 to 4 hours in weeks 02 – 03. (1)

☺ M01O Mapping reduce all supports to 6 passes per week. Move 5 passes to DSS-43, increase pass duration from 10 hours to 12.5 hours and MSPA 3 of 5 passes with MGS Mapping. Move one pass to DSS-63, reduce pass duration from 8 hours to 7.5 hours and MSPA with MRO Prime Science. Delete 2 to 3 MSPA with MGS passes at 70M. (1)

☺ MGS Mapping and Beta Supplement change current requirements to 6 standalone 10-hour passes at 34BWG2 and three 12.5-hour MSPA passes with M01O Mapping at DSS-43. (1)

☺ MRO Prime Science MSPA one 7.5-hour pass at DSS-63 with M01O Mapping. Increase pass duration at DSS-34,45 from 8 to 10 hours. Add two 5-hour passes at DSS-24,25 and add two 4-hour passes at DSS-54,55. Delete two 8.3-hour passes at DSS-14 and two 7.5-hour passes at DSS-63. MRO Ka Ops Demo increase pass duration from 4 to 5 hours at DSS-26. (1)

☺ ROSE Mars Swingby move 3 passes from DSS-15 and 4 passes from 70M to 7 passes at DSS-15,24,54. (1) JDI

☺ SOHO TSO move all 9 supports from 26M to DSS-27,46,66 in week 01. JDI

Events, Recommendations and Analyses

2007 – January (Weeks 01 - 04) (continued)

RECOMMENDATIONS

☺ ULYS move all passes from DSS-24,34 to DSS-34,43 and reduce pass duration from 10 to 5 hours. (Three passes of shorter duration with uplink will be added during preparation of the Mid-range schedule if view period is available.) (2)

Note:

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 03 and at DSS-26\34 in week 04 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M01O, MGS, MRO, MSGR, STA, STB and ULYS.

Events, Recommendations and Analyses

2007 – January (Weeks 01 - 04) (continued)

ANALYSES

1. (70M) The overall projected unsupportable time is moderate to severe for DSS Bearing and Routine Maintenance, M010, MRO and NHPC. The unsupportable time is due to Mars and Sun view period overlap and MRO 20-degree view period constraints on the 34 meter subnet leading to additional loading on the 70 meter subnet.

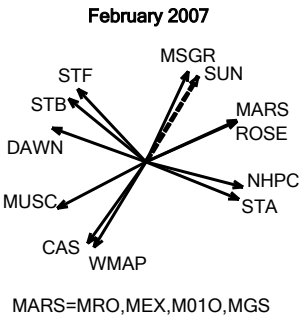
2. (34BWG1) The overall projected unsupportable time is moderate to severe for DSS Maintenance and ULYS. Contention is due to simultaneous 24-hour RFC CAT X/Ka requirement.

Contention levels on the 34HEF, 34BWG2, 34HSB and 26M subnets are workable and should be resolved during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 08)



EVENTS

ATOT A01 Astrometry 24-hour semi-annual event in week 07

Cassini Tour

EGS EVN J-M4 Quarterly Epoch at DSS-14\63 in week 08, and Global VLBI 24-hour Quarterly Epoch at DSS-14\63 in week 07

GSSR Mercury Radar Observations at DSS-14 in weeks 07 and 08

Hayabusa (MUSES-C) Earth Re-entry Phase in week 08

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

Mars Express Bi-Static Radar in week 07 and Orbital Science

New Horizons Maneuvers in weeks 06 and 08, Jupiter Approach ending in week 07 and Jupiter Flyby beginning in week 08

Rosetta Mars Swingby

SOHO Keyhole event beginning in week 08, DOY 052

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation beginning week 07

Wilkinson Microwave Anisotropy Probe Maneuver in week 05

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 06)

RECOMMENDATIONS

☺ CLU2 SSO change supports from DSS-16/27/24/15/14 to DSS-16/27/24/15. CLU4 MSO change support from DSS-46/34/45/43 to DSS-46/34/45 in week 06. (1)

☺ DSS Routine Maintenance delete 1 of 2 supports at DSS-14 in week 06. (1)

☺ M01O Mapping change all 4 to 5 standalone 10-hour passes at the 70M to three 13-hour passes and three 5.5-hour pass at DSS-43 in weeks 05 and 06. M01O Mapping MSPA with MGS Mapping delete 2 to 3 passes at the 70M in weeks 05 and 06. Add seven 8-hour passes at DSS-15,65 and MSPA with MEX Orbital Science in weeks 05 and 06. MSPA to the maximum extent with MGS Map and Beta Supplement for additional coverage. (1)

☺ MEX Orbital Science MSPA all passes at DSS-15,25 with M01O Mapping in weeks 05 and 06. (1)

☺ MGS Mapping MSPA with M01O Mapping delete 2 to 3 passes at the 70M. MGS Mapping delete six 8-hour passes and one 14-hour pass at DSS-25,26,55 in weeks 05 and 06. Add four 7.5-hour passes at DSS-54, three 7.5-hour passes at DSS-65, five 8.3-hour passes at DSS-24 and two 8-hour passes at DSS-26 and MSPA with M01O Mapping in weeks 05 and 06. (1,2)

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 06) (continued)

RECOMMENDATIONS

☺ MRO Prime Science increase pass duration from 8 hours to 10 hours at DSS-34,45 to utilize the long Canberra view. Change 2 of 5 standalone passes at DSS-14 to four 5-hour passes at DSS-25 to utilize maximum view at Goldstone using 20-degree elevation. Change 2 of 5 standalone passes at DSS-63 to four 4-hour passes at DSS-55 to utilize maximum view at Madrid using 20-degree elevation. (1,2)

☺ ROSE Mars Swingby move passes from the 70M subnet to DSS-15,24,54. (1)

☺ ULYS move all passes from DSS-24,34 to DSS-34,45 in weeks 05 and 06 (Assume 5-hour uplink at DSS-34 and 5-hour downlink at DSS-45). (2)

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 05 and DSS-15\65 in week 06 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, DSS, DAWN, MGS, MEX, NHPC, ROSE and ULYS.

Events, Recommendations and Analyses

2007 – February (Weeks 07 - 08)

RECOMMENDATIONS

☺ ATOT A01 Astrometry move 24-hour support from week 07 to week 02. (1)

☺ CLU2 SSO change supports from DSS-16/27/24/15/14 to DSS-16/27/24/15 and from DSS-46/34/45/43 to DSS-46/34/45 in week 07. CLU4 MSO change support from DSS-46/34/45/43 to DSS-46/34/45 in week 07 and 08. (1)

☺ DAWN move passes from the 34HEF to the 34BWG2 subnet in weeks 07 and 08. (2)

☺ DSS Routine Maintenance delete one of two 8-hour supports at DSS-14 in week 08 to accommodate NHPC Jupiter Flyby. (1)

☺ EGS EVN delete calibration and J-M4 supports in week 08. (1)

☺ GSSR Mercury delete supports in weeks 07 and 08. (1)

☺ M01O Mapping move 2 MSPA passes with MGS Mapping from 70M to 34HEF in week 07 and delete the two 70M MSPA passes with MRO in weeks 08. Delete all standalone passes from the 70M. MSPA 2 passes with MGS Mapping at the 34HEF in week 07 and 2 passes with MGS Mapping and Beta Supplement at DSS-25,26,55 in week 08. MSPA with MRO Prime Science five 8.3-hour passes at DSS-14 and five 7.5-hour passes at DSS-63 in weeks 07 and 08. (1,2)

Events, Recommendations and Analyses

2007 – February (Weeks 07- 08) (continued)

RECOMMENDATIONS

☺ MGS Mapping and MSPA with M01O move the two passes from 70M to 34HEF in week 07 and move two Mapping and Beta Supplement passes from 34HEF to DSS-25,26,55 and MSPA with M01O in week 08. Move 6 Beta Supplement passes from DSS-25,26,55 to DSS-15,25,65 in weeks 07 and 08. Maximize MSPA wherever possible to meet requirements. (1,2)

☺ MRO Prime Science delete the 2 MSPA passes with M01O Mapping at the 70M in week 08 and change the 5 standalone passes at DSS-14 and the 5 at DSS-63 to MSPA with M01O Mapping in weeks 07 and 08. (1)

☺ NHPC Jupiter Approach move 7 passes from the 70M to DSS-43 in week 07 and move 7 of 11 Jupiter Flyby passes from the 70M to DSS-43 in week 08. (1)

☺ STA Prime Science move all passes from DSS-26,34,55 to DSS-25,34,54 in weeks 07and 08. (2) JDI

☺ STB Prime Science move all passes from DSS-26,34,54 to DSS-26,45,55 in weeks 07 and 08. (2) JDI

☺ ULYS move all passes from DSS-24,34 to DSS-34,43 and reduce pass duration from 5 hours to 4 hours in weeks 07 and 08. (Three passes of shorter duration with uplink will be added during preparation of the Mid-range schedule if view period is available.) (2)

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 08) (continued)

ANALYSES

1. (70M) The overall projected unsupportable time is moderate to extreme for DSS Bearing and Routine Maintenance, CLU2, M010, MRO and NHPC. The unsupportable time is due to significant overlap between Mars and Sun view period. It is further compounded by NHPC Jupiter Flyby requirements in weeks 07 and 08, SOHO Keyhole in week 08 and MRO 20-degree view period constraints on the 34BWG stations leading to additional loading on the 70M.

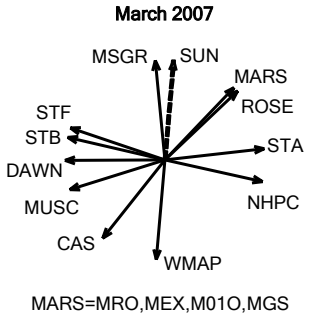
2. (34BWG1) The overall projected unsupportable time is moderate for DSS Maintenance, SOHO and ULYS. The unsupportable time is due to Mars, Sun and ULYS view period overlap.

Contention levels on the 34HEF, 34BWG2, 34HSB and 26M subnets are workable and should be resolved during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – March (Weeks 09 - 13)



EVENTS

Cassini Tour

Chandra ACA Dark Current Measurement and Lunar Eclipse in week 10

GSSR Mercury Radar Observations at DSS-14 in week 09

Hayabusa (MUSES-C) Re-entry Phase

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

Mars Express Bi-Static Radar in week 11 and Orbital Science

New Horizons Jupiter Flyby in week 09, Jupiter Departure beginning in week 10 and Maneuvers in weeks 11 and 13

Rosetta Mars Swingby ending in week 13

SOHO Keyhole event ending in week 10, DOY 068

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Events, Recommendations and Analyses

2007 – March (Week 09) (continued)

RECOMMENDATIONS

☺ DSS Maintenance delete 1 of 2 supports at DSS-14 in week 09 to accommodate NHPC Jupiter Flyby. Reduce Maintenance support at DSS-63 from 8 hours to 6 hours in week 09 to accommodate NHPC Jupiter Flyby. (1)

☺ M01O Mapping move two 8-hour MSPA passes with MRO Prime Science from 70M to DSS-14; add one 8-hour pass at DSS-63 and MSPA with MRO Prime Science; add two 5.5-hour passes at DSS-14; add three 2-hour passes at DSS-43; add one 12-hour passes at DSS-43; add one 14-hour pass at DSS-25,26,55 and MSPA with MGS Mapping; add six 8-hour passes at DSS-24,25,55 and MSPA 5 of 6 passes with MGS Mapping. Delete remaining passes. (1)

☺ MEX Orbital Science add seven 8-hour supports at DSS-15,65 and MSPA with MGS Mapping and Beta Supplement. (1)

☺ MGS Mapping and Beta Supplement MSPA 5 of 6 standalone 8-hour passes and one 14-hour pass at DSS-25,26,55 with M01O Mapping. Add seven 8-hour supports at DSS-15,65 and MSPA with MEX Orbital Science. (1)

Events, Recommendations and Analyses

2007 – March (Week 09) (continued)

RECOMMENDATIONS

☺ MRO Prime Science increase pass duration at DSS-34,45 from 8-hours to 10.5-hours to utilize long Canberra view. MSPA one of five 8-hour passes at DSS-63 with M01O Mapping. Move the 2 MSPA passes with M01O Mapping from 70M to DSS-14.

Change the remaining three 8-hour passes at DSS-14, four 8-hour passes at DSS-63 and four 4-hour passes at DSS-26,55 for Ka Ops Demo as follows: Add five 5.5-hour passes at DSS-26,25 and six 4.5-hour passes at DSS-54,55 to utilize full view at Goldstone and Madrid.

☺ NHPC Jupiter Flyby move 1 of 17 from 70M to DSS-45 to accommodate DSS Maintenance.

☺ SOHO Keyhole accommodate DSS Maintenance.

☺ ULYS Nutation move all passes from DSS-24,34 to DSS-34,43. Move Ranging pass from DSS-24,34 to DSS-34 in week 09.

Note:

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 09 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M01O, MGS, MRO, MSGR, STA, STB and ULYS.

Events, Recommendations and Analyses

2007 – March (Weeks 10 - 13) (continued)

RECOMMENDATIONS

☺ CLU2 SSO change from DSS-16/27/24/15/14 to DSS-16/27/24 and from DSS-46/34/45/43 to DSS-46/34/45 in weeks 10 and 11. (1)

☺ M01O Mapping MSPA with MGS move 2 passes from 70M to the 34BWG1 subnet in weeks 10 and 11. Delete all standalone 70M passes and MSPA with MRO ten 8-hour passes at DSS-14,63 in weeks 10 and 11. Move all standalone 70M passes to DSS-43 in weeks 12 - 13. MSPA with MRO Prime Science move passes from 70M to DSS-14,63 in week 12. Move 2 passes from DSS-43 to DSS-14,63 and MSPA with MRO Prime Science in week 13. MSPA with MGS Mapping move passes from 70M to DSS-43 in week 12. (1)

☺ MRO Prime Science MSPA ten 8-hour passes at DSS-14,63 with M01O Mapping in weeks 10 and 11. MSPA with M010 move passes from 70M to DSS-14,63 in week 12. MRO MSPA 2 passes at DSS-14,63 with M010 in week 13. Ka Ops Demo increase pass duration from 4 to 5.5 hours in weeks 12 – 13. Add three 5.5 hour passes at 34BWG2 and delete two 8-hour passes at DSS-14,63 in weeks 12 – 13. (1,2)

☺ MGS Mapping MSPA with M01O move 2 passes from 70M to the 34BWG1 subnet in weeks 10 and 11. MGS Mapping MSPA with M010 move passes from 70M to DSS-43 in week 12. (1)

☺ NHPC Jupiter departure move 6 of 7 passes from 70M to DSS-43 and move remaining pass to DSS-34,45 to accommodate DSS Maintenance in weeks 10 and 11. (1)

Events, Recommendations and Analyses

2007 – March (Weeks 10 - 13) (continued)

RECOMMENDATIONS

☺ ROSE Mars Swingby move 3 passes from DSS-15 to DSS-25 in week 12. (2) JDI

☺ SOHO TSO move 9 of 15 passes from 26M to DSS-27,46,66 and move two 9.6-hour passes from 26M to 34BWG1 in week 13. JDI

☺ STA Prime Science move passes from DSS-26,34,55 to DSS-26,45,65 in weeks 12 – 13. (3,4) JDI

☺ ULYS Nutation move passes from DSS-24,34 to DSS-34,43. Reduce pass duration from 5 hours to 4 hours in weeks 10 – 11. Move all Ranging passes from DSS-24,34 to DSS-34,43. (Three passes of shorter duration with uplink will be added during preparation of the Mid-range schedule if view period is available.) (1)

Note:

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\34 in week 10 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CLU2, DSS, IMAG, M01O, MRO, MSGR, MUSC, STA, STB, and ULYS.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 12 and DSS-15\65 in week 13 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, DSS, MEX, MRO and STA.

Events, Recommendations and Analyses

2007 – March (Weeks 09 - 13) (continued)

ANALYSES

1. (70M) The overall projected unsupportable time is moderate to extreme for DSS Bearing and Routine Maintenance, CLU2, GSSR, M010, MGS, MRO and SOHO. The unsupportable time is due to significant overlap between Mars and Sun view period. It is further compounded by NHPC Jupiter Flyby requirements in week 09 and MRO 20-degree view period constraints on the 34BWG stations leading to additional loading on the 70M.

2. (34HEF) The overall projected unsupportable time is moderate for DSS Maintenance. Contention is due to Mars missions and Sun view period overlap and is compounded by the simultaneous 24-hour RFC CAT S/X requirements.

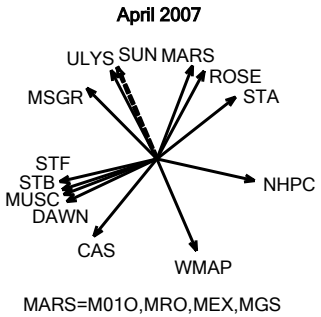
3. (34BWG1) The overall projected unsupportable time is moderate to severe for CLU2, DSS Maintenance, IMAG, SOHO and ULYS. Contention is due to significant view period overlap between Mars missions and Sun and is compounded by the simultaneous 24-hour RFC CAT X/Ka requirements.

4. (34BWG2) The overall projected unsupportable time is moderate for DSS Maintenance, M01O and MGS. The unsupportable time is due to view period overlap between Mars missions and Sun and is compounded by the simultaneous 24-hour RFC CAT X/Ka requirements.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Events, Recommendations and Analyses

2007 – April (Weeks 14 - 17)



EVENTS

ATOT A01 Imagery 24-hour Observation at DSS-43 in week 17

Cassini Tour

GSSR Mercury Radar Observations at DSS-14 in week 14

Hayabusa (MUSES-C) Earth Re-entry Phase

Mars Express Bi-Static Radar in week 15 and Orbital Science, Occultation beginning in week 17, DOY 113

Mars Odyssey Delta DOR in week 15

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Jupiter Departure

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Events, Recommendations and Analyses

2007 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

☺ CAS Tour move 1 pass from DSS-14 to DSS-63 in weeks 14 – 15. (1)

☺ GSSR Mercury Radar move support from week 14 to week 16. (1)

☺ M01O Mapping in weeks 14 – 15: move 2 standalone passes from 70M to DSS-14,63 and MSPA with MRO Prime Science; move remaining standalone and MSPA with MGS passes from 70M to DSS-43. M01O Delta DOR move passes at DSS-14\63 and DSS-14\43 from week 15 to week 16. (1)

☺ MGS Mapping MSPA with M01O move passes from 70M to DSS-43 in weeks 14 – 15. (1)

☺ MRO Prime Science in weeks 14 – 15: MSPA 2 passes with M01O Mapping at DSS-14,63; add two 7-hour passes at DSS-25; add one 6-hour pass at DSS-55; increase Ka Ops Demo pass duration from 4 to 5 hours; delete three 8-hour passes at DSS-14,63. (1)

☺ SOHO TSO move all 9 supports from 26M to DSS-27,46,66 in week 17. JDI

☺ STA Prime Science move all passes from DSS-14,26,34,55 to DSS-26,45,65. (1,2) JDI

☺ STB Prime Science move all passes from DSS-14,26,34,55 to DSS-26,45,65. (1,2) JDI

☺ ULYS Nutation move 10 of 14 passes from DSS-24,34 to DSS-34 and move remaining 4 passes to DSS-43. Move Ranging pass from DSS-24,34 to DSS-34. (2)

Events, Recommendations and Analyses

2007 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

Note:

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 15 and at DSS-26\34 in week 16 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DSS, IMAG, MRO, STA, STB, and ULYS.

Events, Recommendations and Analyses

2007 – April (Weeks 14 - 17) (continued)

ANALYSES

1. (70M) The overall projected unsupportable time is moderate to severe for DSS Bearing and Routine Maintenance, CLU2, M010, MRO, STA and STB. The unsupportable time is due to Mars and Sun view period overlap and is compounded by MRO 20-degree view period constraints on the 34BWG stations leading to additional loading on the 70M in weeks 14 - 15.

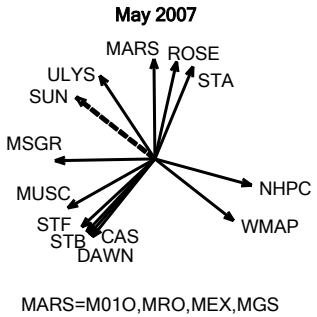
2. (34BWG1) The overall projected unsupportable time is moderate to severe for CLU2, DSS Maintenance, IMAG and ULYS. Contention is due to view period overlap with the Mars mission and Sun view period and is compounded by the simultaneous 24-hour RFC CAT X/Ka requirement.

Contention levels on the 34HEF, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – May (Weeks 18 - 22)



EVENTS

Cassini Tour

EGS Global VLBI Quarterly Epoch at DSS-14\63 in week 21

GSSR Asteroid 1862 Apollo Observations in week 19

Hayabusa (MUSES-C) Earth Re-entry Phase and Delta DOR beginning in week 19

Mars Express Bi-Static Radar in week 20 and Occultation ending in week 22

Mars Odyssey Delta DOR in week 20

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

MESSENGER Delta DOR in weeks 20 – 22

New Horizons Jupiter Departure

SOHO Keyhole event beginning in week 20, DOY 139

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Wilkinson Microwave Anisotropy Probe Maneuver in week 21

Events, Recommendations and Analyses

2007 – May (Weeks 18 - 22) (continued)

RECOMMENDATIONS

☺ CHDR move 7 of 21 passes from 34BWG1 to 26M and increase pass duration from 1 hour to 2 hours in weeks 20 – 22. (3)

☺ MEX Occultation move all passes from DSS-14,65 to DSS-15,65. (1)

☺ MGS Mapping and Beta Supplement move 4 of 7 passes per week from DSS-25,26,54,55 to DSS-25,26,55 and MSPA with MRO Prime Science. (3)

☺ MRO Prime Science move 4 of 14 passes per week from 34BWG1,34BWG2 to DSS-25,26,55 and MSPA with MGS Mapping and Beta Supplement. (3)

☺ STA Prime Science move all passes from DSS-26,45,55 to DSS-26,34,55. (2)

☺ STB Prime Science move all passes from DSS-26,45,55 to DSS-26,43,55. (2)

☺ ULYS Nutation move all passes from DSS-24,34 to DSS-34,43 in weeks 18 and 19. Move all passes from DSS-24,34 to DSS-24,34,43 in weeks 20 – 22. (Three passes of shorter duration with uplink will be added during preparation of the Mid-range schedule if view period is available.) (3)

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 19 and DSS-15\65 in week 20 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DSS, MEX, MRO and MSGR.

Events, Recommendations and Analyses

2007 – May (Weeks 18 - 22) (continued)

ANALYSES

1. (70M) The overall projected unsupportable time is moderate to severe for DSS Bearing and Routine Maintenance, and MEX. Contention is due to oversubscription at DSS-14 caused by GSSR Asteroid 1862 Apollo, M01O and MEX.

2. (34HEF) The overall projected unsupportable time is moderate to severe for DSS Routine Maintenance and MEX Occultation. The unsupportable time is due to Mars and Sun view period overlap compounded by the simultaneous 24-hour RFC CAT X/Ka requirements.

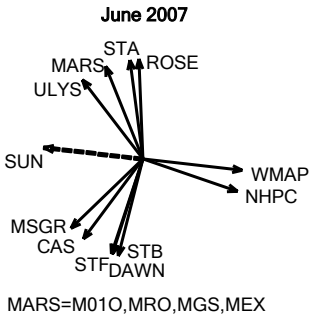
3. (34BWG1) The overall projected unsupportable time is moderate to severe for DSS Maintenance, SOHO Keyhole and ULYS Nutation. The unsupportable time is due to Mars, Sun and ULYS view period overlap.

Contention levels on the 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – June (Weeks 23 - 26)



EVENTS

DSS-54 downtime (X/X Ka-band installation) beginning in week 23

ATOT Mission Observation Quarterly event in week 24

Cassini Tour

Chandra Earth Eclipse in weeks 25 and 26

EGS EVN J-M4 Quarterly Epoch at DSS-14\63 in week 23

GSSR Mercury Radar Observations in week 24 and Mercury RSD in week 25

Hayabusa (MUSES-C) Earth Re-entry and End Of Prime Mission in week 23, DOY 161 and Delta DOR ending week 23

Mars Express Bi-Static Radar and Orbital Science beginning in week 24

Mars Odyssey Delta DOR in week 24

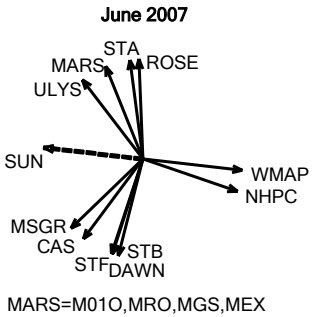
Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

MESSENGER Venus Flyby in week 23, DOY 157

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – June (Weeks 23 - 26)



EVENTS

New Horizons Beacon and Cruise Telemetry support beginning in week 26, Jupiter Departure ending in week 26

SOHO Keyhole event ending week 23, DOY 155

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Events, Recommendations and Analyses

2007 – June (Weeks 23 - 26) (continued)

RECOMMENDATIONS

☺ ATOT Mission support move from week 24 to week 22. (1)

☺ GSSR Mercury RSD GBT move 4 of 7 supports from week 25 to week 26. (1)

☺ MEX Orbital Science move 3 of 7 passes from DSS-15,25 to 34BWG2 and MSPA with MRO Prime Science in weeks 24 – 26. (2)

☺ MGS Mapping and Beta Supplement move 2 passes per week from 34HEF to DSS-25,26,55 and MSPA with MRO Prime Science. Maximize MSPA wherever possible to meet requirements. (2)

☺ MRO Prime Science move 2 of 11 passes per week from 34BWG1,34BWG2 to 34BWG2 and MSPA with MGS Mapping and Beta Supplement. Move 3 of 8 passes from 34BWG1,34BWG2 to 34BWG2 and MSPA with MEX Orbital Science. (3)

☺ STA Prime Science move all passes from DSS-26,45,55 to 34HEF. (4)

☺ ULYS Nutation move all passes from DSS-24,34 to DSS-14,43 in weeks 23, 25 and move all passes from DSS-24,34 to DSS-24,43 in weeks 24, 26. (3) JDI

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 25 and DSS-15\65 in week 26 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DSS, MEX, STA and STB.

Events, Recommendations and Analyses

2007 – June (Weeks 23 - 26) (continued)

ANALYSES

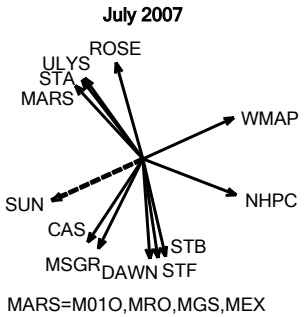
1. (70M) The overall projected unsupportable time is moderate to severe for DSS Bearing and Routine Maintenance. The unsupportable time is due to Mars, Sun and GSSR Mercury view period overlap.
2. (34HEF) The overall projected unsupportable time is moderate for DSS Maintenance. Contention is due to the simultaneous 24-hour RFC CAT S/X requirements and Mars and Sun view period overlap.
3. (34BWG1) The overall projected unsupportable time is moderate to severe for DSS Maintenance, SOHO Keyhole and ULYS Nutation. The unsupportable time is due to Mars, Sun and ULYS view period overlap compounded by the DSS-54 downtime starting in week 23.
4. (34BWG2) The overall projected unsupportable time is moderate to severe for DSS Maintenance and MEX Orbital Science. The unsupportable time is due to Mars and Sun view period overlap.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – July (Weeks 27 - 30)



EVENTS

DSS-54 approved downtime (X/X Ka-band installation) ending in week 30

Cassini Tour

Chandra ACA Dark Current Measurement and Earth Eclipse in week 27

GSSR Mercury RSD Observations in week 30

Mars Odyssey Delta DOR in week 28

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

Mars Express Bi-Static Radar and Orbital Science

New Horizons Beacon Support and Cruise Telemetry support

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Events, Recommendations and Analyses

2007 – July (Weeks 27 - 30) (continued)

RECOMMENDATIONS

☺ IMAG move 7 of 13 passes from DSS-24,34 to DSS-45/46 in weeks 27 and 30. (1) JDI

☺ MEX Orbital Science move all passes at DSS-15,25 to DSS-15,65 in week 29. (2) JDI

☺ ULYS Nutation move all support from the 34BWG1 to the DSS-14,43. (1) JDI

Note:

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 27 and at DSS-26\34 in week 28 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, DSS, DSN, MGS, MRO, MSGR, NHPC and ULYS.

Events, Recommendations and Analyses

2007 – July (Weeks 27 - 30) (continued)

ANALYSES

1. (34BWG1) Moderate to severe unsupportable time is forecast for CLU2, DSS Maintenance, IMAG, SOHO and ULYS due to oversubscription of the subnet and the 100% overlap of ULYS and Mars view periods.

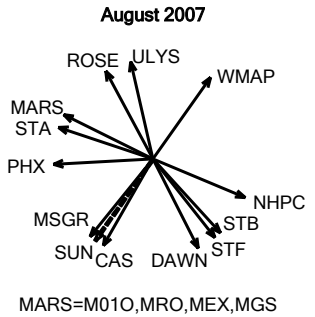
2. (34BWG2) Moderate unsupportable time is forecast for MEX Orbital Science and MGS Mapping due to oversubscription in week 29.

Contention levels on the 70M, 34HEF, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – August (Weeks 31 - 35)



EVENTS

ATOT A01 Imagery Observation event at DSS-43 in week 35

Cassini Tour

GSSR Mercury Radar Observations and Mercury RSD with Green Bank Telescope in week 31

Mars Express Bi-Static Radar and Orbital Science

Mars Odyssey Delta DOR in week 33

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Beacon Support and Cruise Telemetry support

Phoenix Launch in week 31, Delta DOR in week 34 and TCM in week 33 and 34

SOHO Keyhole event beginning in week 33 and ending week 35

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Events, Recommendations and Analyses

2007 – August (Weeks 31 - 35) (continued)

RECOMMENDATIONS

☺ MEX Orbital Science move 4 of 7 supports from DSS-15,25 to the 34BWG2 subnet in week 32 and 33. (1) JDI

☺ ULYS Nutation move all support from the 34BWG1 to DSS-14,43. (2) JDI

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 32 and DSS-15\65 in week 33 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DSS, DSN, DAWN, MEX, MRO, MSGR, PHX, SGP, SOHO and STA.

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 33 and at DSS-26\34 in week 34 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, CLU2, DSS, DSN, IMAG, MEX, MRO, MSGR, NHPC, PHX, SOHO, STA, STB and ULYS.

Events, Recommendations and Analyses

2007 – August (Weeks 31 - 35) (continued)

ANALYSES

1. (34HEF) Moderate unsupportable time is forecast for DSS Maintenance and MEX Orbital Science due to oversubscription in the Mars view period in weeks 32 and 33.

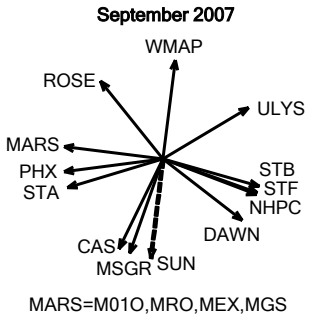
2. (34BWG1) Moderate to severe unsupportable time is forecast for DSS Maintenance, SOHO, MGS Mapping/Beta Supplement and ULYS due to oversubscription of the subnet primarily at DSS-34, Phoenix LEOP support, SOHO keyhole and the 100% overlap of ULYS and Mars view periods.

Contention levels on the 70M, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – September (Weeks 36 - 39)



EVENTS

ATOT A01 Astrometry 24-hour semi-annual event at DSS-43 in week 37

Cassini Tour

GSSR Mercury Radar Observations in week 39

Mars Express Bi-Static Radar and Orbital Science

Mars Odyssey Delta DOR in week 37

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Beacon Support and Cruise Telemetry support ending in week 37, Checkout beginning in week 38 and Delta DOR in weeks 38 – 39

Phoenix Delta DOR, ACS NAV in week 37, TCM-2 support in week 39

SOHO Keyhole event ending in week 36 and HSO continuous beginning in week 36

STEREO Ahead Prime Science

STEREO Behind Prime Science

Wilkinson Microwave Anisotropy Probe TCM in week 37

Events, Recommendations and Analyses

2007 – September (Weeks 36 - 39) (continued)

RECOMMENDATIONS

☺ MGS Mapping and Beta Supplement move four 14-hour passes at the 34BWG1 to the 34HEF subnet and reduce pass duration to 10-hours in week 39. Add four 4-hour passes at the 34BWG2 subnet in week 39. JDI

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 36 and 39 and DSS-15\65 in week 38 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DSS, DSN, DAWN, MEX, MGS, MSGR, NHPC, PHX, SGP, SOHO and STA.

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 39 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, DSS, DSN, MGS, MRO, MSGR, PHX and STB.

Events, Recommendations and Analyses

2007 – September (Weeks 36 - 39) (continued)

ANALYSES

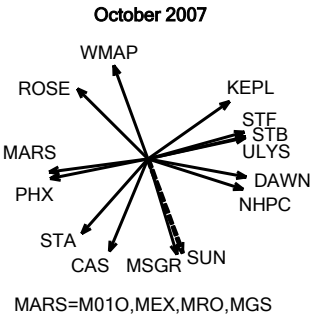
(34BWG1) Severe unsupportable time is forecast for MGS Mapping and Beta Supplement due to oversubscription in the Mars view period by MGS, PHX TCM in week 39 .

Contention levels on the 70M, 34HEF, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – October (Weeks 40 - 43)



EVENTS

Cassini Tour

Chandra Lunar Eclipse in week 40

GSSR Mercury Radar Observation in week 41 and Asteroid 2340 Hathor Observation in week 43

Kepler Launch, Initial Acquisition, Commissioning and Science Operations in week 40

Mars Express Bi-Static Radar and Orbital Science

Mars Odyssey Delta DOR in week 42

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

MESSENGER DSM-2 in week 42

New Horizons Checkout

Phoenix Delta DOR and TCM-2 in week 40

SOHO HSO continuous

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Events, Recommendations and Analyses

2007 – October (Weeks 40 - 43) (continued)

RECOMMENDATIONS

☺ DSS Maintenance move DSS-14 Maintenance from Thursday to Friday, move DSS-63 Maintenance from Thursday to Tuesday and DSS-65 Maintenance to Thursday in week 43. (1)

☺ STB Prime Science move passes from DSS-26,34,54 to 34HEF. (2,3) JDI

☺ ULYS Nutation move all passes from the 34BWG1 to DSS-14,43. (2) JDI

Note:

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\34 in week 40 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: DSS, DSN, KPLR, MGS, MRO, MSGR PHX, STA and ULYS.

Events, Recommendations and Analyses

2007 – October (Weeks 40 - 43) (continued)

ANALYSES

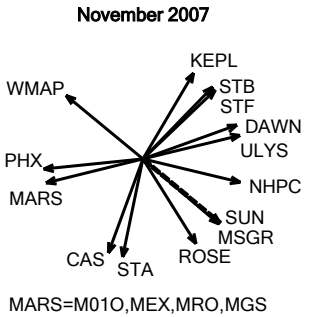
1. (70M) Moderate unsupportable time is forecast for MSGR DSM-2 in week 43 due to DSN Maintenance at DSS-14 and DSS-63 on the maneuver day, Thursday DOY 298.
2. (34BWG1) The overall projected unsupportable time for this period is moderate to severe for CLU2, IMAG, KEPL, MGS Mapping/Beta Supplement, MSGR Cruise, RFC Cat X/Ka, STB Prime Science and ULYS Nutation due to oversubscription of the subnet, KEPL Launch and Commissioning and PHX support.
3. (34BWG2) The overall projected unsupportable time is moderate to severe for MEX Orbital Science, MGS Mapping/Beta Supplement, MSGR Cruise, RFC CAT X/Ka and STB Prime Science due to oversubscription of the subnet, KEPL Launch and Commissioning, and PHX support.

Contention levels on the 34HEF, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – November (Weeks 44 - 48)



EVENTS

Cassini Tour

Chandra ACA Dark Current Measurement week 45, Leonid Pass in week 48 and Lunar Eclipse in week 44

EGS Global VLBI Quarterly Epoch at DSS-14\63 in week 45 and EVN J-M4 Quarterly Epoch at DSS-14\63 in week 46

GSSR Mercury Radar Observation in week 45

Kepler Science Operations

Mars Express Bi-Static Radar and Orbital Science

Mars Odyssey Delta DOR in week 46 and THEMIS beginning in week 48

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Checkout ending in week 45, Cruise Telemetry support beginning in week 45 and Beacon Support beginning in week 46

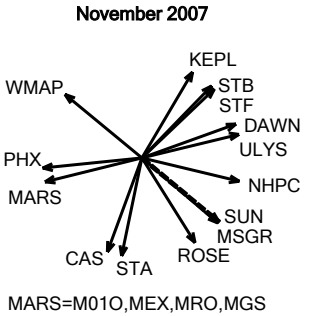
Phoenix Delta DOR

Rosetta Earth 2 Swingby beginning in week 44 and ending in week 48

SOHO HSO continuous ending in week 46 and Keyhole event beginning in week 46 and ending in week 48

Events, Recommendations and Analyses

2007 – November (Weeks 44 - 48)



EVENTS

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation ending in week 48

Events, Recommendations and Analyses

2007 – November (Weeks 44 - 48) (continued)

RECOMMENDATIONS

☺ ULYS Nutation move all passes from the 34BWG1 to DSS-14,43. JDI

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 44 and DSS-15\65 in week 45 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: DSS, DSN, MEX, MSGR, PHX, SGP, STA and STB.

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 45 and at DSS-26\34 in week 46 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: DSS, DSN, MGS, MRO, MSGR, NHPC, PHX, SOHO, STA, STB and ULYS.

Events, Recommendations and Analyses

2007 – November (Weeks 44 - 48) (continued)

ANALYSES

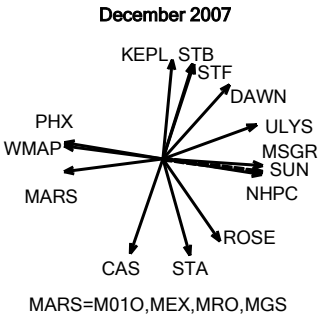
(34BWG1) Moderate to severe unsupportable time is forecast for DSS Maintenance, SOHO and ULYS due to oversubscription of the subnet and the 100% overlap of ULYS and Mars view periods.

Contention levels on the 70M, 34HEF, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2007 – December (Weeks 49 - 52)



EVENTS

ATOT A01 Imagery Observation event at DSS-43 in week 51

Cassini Tour

GSSR Asteroid 3200 Phaethon Observations in week 50 and Mars Radar Observations

Kepler Quarterly Roll Maneuver in week 51, and Science Operations

Mars Express Bi-Static Radar and Orbital Science

Mars Odyssey THEMIS and Delta DOR in week 50

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Maneuver in week 50 and Beacon Cruise Telemetry support ending in week 49 and beginning in week 51

Phoenix Delta DOR

STEREO Ahead Prime Science

STEREO Behind Prime Science

Events, Recommendations and Analyses

2007 – December (Weeks 49 - 52) (continued)

RECOMMENDATIONS

☺ ACE move seven 3.5-hour passes from the 26M subnet to DSS-27 and add one 1-hour pass at DSS-46 and three 1-hour passes at DSS-16,66 in week 52. (3) JDI

☺ MRO Prime Science MSPA 3 of 14 passes per week with MEX Orbital Science at the 34BWG1,34BWG2 subnet. (2)

☺ MEX Orbital Science move 3 of 7 passes per week from DSS-15,25 in weeks 49 – 51 and from DSS-15,26 in week 52 to the 34BWG1, 34BWG2 and MSPA with MRO Prime Science. (2)

☺ ULYS change seven 10-hour passes to fourteen 5-hour passes and move from DSS-24,34 to DSS-14,43. (1) JDI

☺ SOHO move four 1.6-hour passes from 26M to DSS-27 in week 52. (3)

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15/45 in weeks 50 and DSS-15\65 in week 51 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CLU2, DAWN, DSS, DSN, MEX, MSGR, PHX and SGP.

RFC Cat M&E X/Ka-Band simultaneous 24-hour supports at DSS-26/55 in week 51 and at DSS-26\34 in week 52 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, DSS, DSN, IMAG, KEPL, MEX, MGS, MRO, NHPC, PHX, STA, STB and ULYS.

Events, Recommendations and Analyses

2007 – December (Weeks 49 - 52) (continued)

ANALYSES

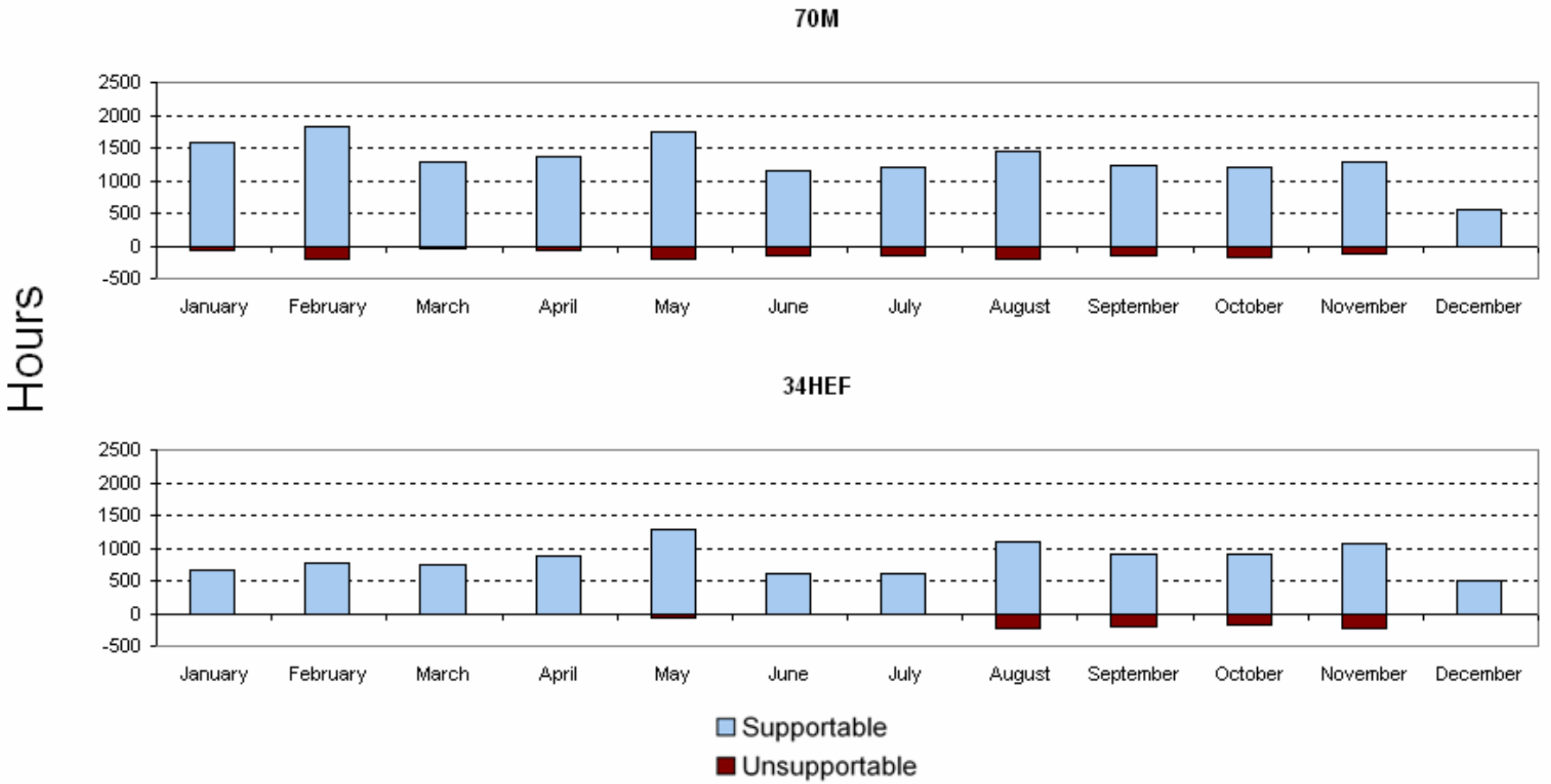
1. (34BWG1) Moderate to severe unsupportable time is forecast for DSS Maintenance, ULYS and MGS Mapping/Beta Supplement due to oversubscription of the subnet and 100% overlap of ULYS and Mars view periods.
2. (34BWG2) The overall projected unsupportable time for this period is moderate for MEX Orbital Science due to oversubscription in the Mars view period.
3. (26M) Severe unsupportable time is forecast for ACE due to oversubscription in the Sun view period during the SOHO TSO in week 52.

Contention levels on the 70M, 34HEF, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

2008 Events, Recommendations and Analyses

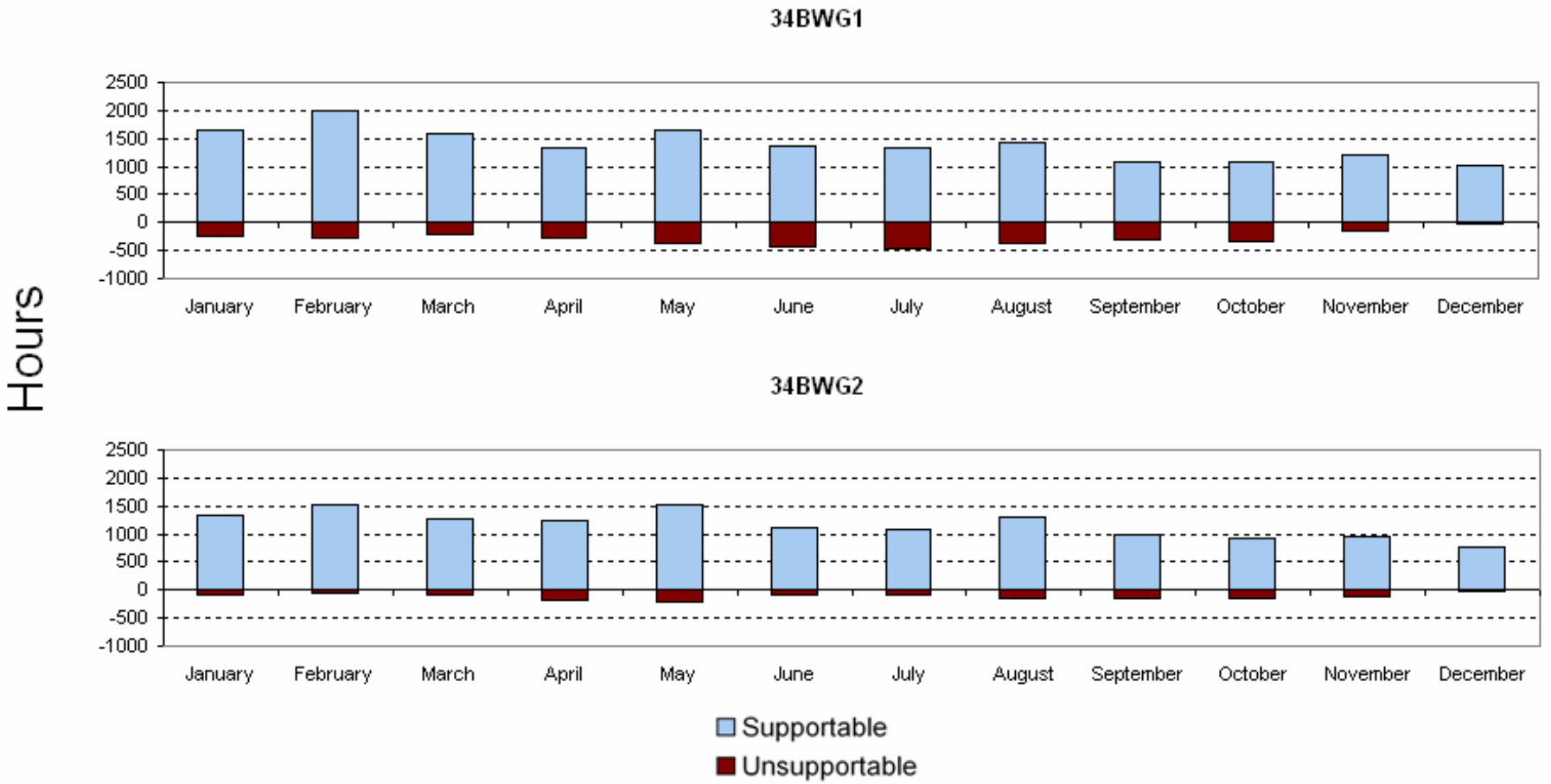
Events, Recommendations and Analyses

2008 Monthly Average User Unsupportable Time



Events, Recommendations and Analyses

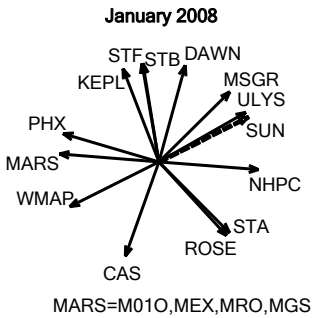
2008 Monthly Average User Unsupportable Time



Resource Allocation Review Board

Events, Recommendations and Analyses

2008 – January (Weeks 01 - 05)



EVENTS

Cassini Tour

Chandra Earth Eclipse in week 01

GSSR Mars Radar Observations in weeks 01 to 04 and Mercury Radar Observation in week 04

Kepler Science Operations

Mars Express Bi-Static Radar in week 01 and Orbital Science

Mars Odyssey THEMIS, Delta DOR in week 03

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

MESSENGER Mercury Flyby in weeks 03, DOY 014

New Horizons Maneuver in weeks 02 and 03 DOY 007 – 020

Phoenix Delta DOR

STEREO Ahead Prime Science

STEREO Behind Prime Science

Wilkinson Microwave Anisotropy Probe Maneuver in week 01

Events, Recommendations and Analyses

2008 – January (Weeks 01 - 05) (continued)

RECOMMENDATIONS

☺ ACE move 1 of 7 passes from DSS-16,66 to DSS-54 in week 04. JDI

☺ M01O Mapping MSPA all 7 passes at 70M with MGS Mapping and Beta Supplement. (1,2)

☺ MGS Mapping and Beta Supplement change seven 14-hour passes to seven 10-hour passes and seven 4-hour passes at DSS-26,34,54. Move all 10-hour passes from DSS-26,34,54 to 70M and MSPA with M01O Mapping. Move 1 of 2 passes from 34HEF to 70M in weeks 02 and 04 and MSPA with M01O Mapping. Maximize MSPA wherever possible in weeks 1 and 3 – 5 to meet requirements. (1,2)

☺ MRO Prime Science move 7 of 14 passes from DSS-25,34,55 to 70M. (1,2)

☺ MSGR Cruise move 4 passes from DSS-26,34,54 to 34HEF. (1,2) JDI

☺ SOHO TSO move all passes from 26M to DSS-27,46,66 in week 4. Move 2 passes from 26M to 34BWG1 in week 04. JDI

☺ STA Prime Science move 4 of 7 passes from DSS-26,34,55 to DSS-26,45,55 in week 02. (1) JDI

☺ STB Prime Science move 4 of 7 passes from DSS-26,34,55 to DSS-26,45,55 in week 02. (1) JDI

☺ ULYS change 10-hour passes at DSS-24,34 to use split passes of 4-hour pass at DSS-24 and 6-hour downlink only pass at DSS-54. (1) JDI

Events, Recommendations and Analyses

2008 – January (Weeks 01 - 05) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55,26\34 in week 03 and 04 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, CHDR, IMAG, KEPL, MEX, MGS, MRO and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45 in week 05 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, MEX and PHX.

Events, Recommendations and Analyses

2008 – January (Weeks 01 - 05) (continued)

ANALYSES

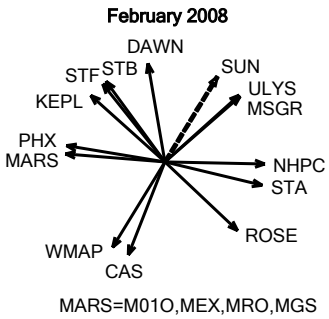
1. (34BWG1) The projected unsupportable time is moderate for MRO Prime Science and PHX Cruise and moderate to severe for MGS Mapping and Beta Supplement. Contention is due to nearly 100% view period overlap between MRO, MGS and PHX and is further compounded by simultaneous 24-hour support for RFC CAT X/Ka at DSS-26\55 and DSS-26\34.

2. (34BWG2) Severe unsupportable time is forecast for GSSR DSS-14/25 Mars Observation and MEX Orbital Science. Contention is due to nearly 100% view period overlap and oversubscription at DSS-25.

Contention levels on the 70M, 34HEF, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09)



EVENTS

ATOT A01 Astrometry 24-hour semi-annual event in week 07 at DSS-43

Cassini Tour

EGS Global VLBI Quarterly Epoch at DSS-14/63 in week 07 and EGS EVN J-M4 Quarterly Epoch at DSS-14/63 in week 08

GSSR Asteroid 2001 SN6 support in week 08, Asteroid 4450 Pan support in weeks 07 and 08

Kepler Science Operations

Lunar-A End Of Prime Mission in week 02

Mars Express Orbital Science and Occultation

Mars Odyssey THEMIS, Delta DOR in week 07

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

Phoenix Delta DOR

STEREO Ahead Prime Science

STEREO Behind Prime Science

Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09) (continued)

RECOMMENDATIONS

☺ EGS Global VLBI move 24-hour support at DSS-14/63 from week 07 to week 09. EVN J-M4 and Calibration move supports from week 08 to week 10. (1) JDI

☺ GSSR Asteroid 4450 Pan move 2 supports from week 08 to week 07. Asteroid 2001 SN6 move all supports in week 08 to week 06. (1)

☺ MEX Orbital Science move all 8-hour passes from DSS-15,25 to DSS-15,26. MSPA all 7 passes at DSS-15,26 with M01O Mapping in week 6. (3) JDI

☺ M01O Mapping MSPA all seven 10-hour passes at the 70M with MGS Mapping in weeks 07 – 09. Move all 7 passes in week 06 from 70M to DSS-15,26, reduce pass duration from 10 hours to 8 hours and MSPA with MEX Orbital Science. Add six 4-hour passes at DSS-24,45,65 and MSPA with MGS Mapping in week 06. Add five 10-hour passes at 34HEF and MSPA with MGS Mapping in week 6. M01O THEMIS MSPA all passes at 70M with MRO Prime Science. (1,2,3)

☺ MGS Mapping and Beta Supplement change the 14-hour passes at DSS-26,34,54 to 10-hour passes at 70M and 4-hour passes at DSS-24,45,65. MSPA all 10-hour passes at the 70M with M01O Mapping in weeks 07 – 09. MSPA all 4-hour passes at DSS-24,45,65 with M01O Mapping in week 06. Add three 10-hour passes at 34HEF and MSPA with M01O Mapping in week 6. Move the 1 pass in week 07 at 34BWG1 to DSS-24 only. (2,3)

Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09) (continued)

RECOMMENDATIONS

☺ MRO Prime Science move 7 of 14 passes from DSS-25,34,55 to 70M and MSPA with M01O THEMIS. (2,3)

☺ SOHO move two 8-hour passes in week 8 from 26M to 34BWG1. TSO move 8 of 15 passes from 26M to DSS-27,46,66. JDI

☺ ULYS change 10-hour passes at DSS-24,34 to use split passes of 4-hour pass at DSS-24 and 6-hour downlink only pass at DSS-54. (2) JDI

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55,26\34 in week 09 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, KEPL, MGS, MRO, MSGR, PHX, STA and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45 in week 06 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, MEX and MGS.

Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09) (continued)

ANALYSES

1. (70M) The projected unsupportable time is forecast to be moderate for GSSR Asteroid 4450 Pan, CLU2 SSO, EGS Global VLBI and M01O THEMIS, severe for DSS Bearing Maintenance, EGS EVN J-M4, GSSR Asteroid 2001 SN6, M01O Mapping, STF and WMAP routine support. Contention is due to significant view period overlap among the above missions in Sun view period and primarily due to oversubscription at DSS-14.

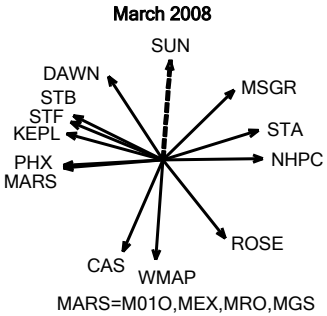
2. (34BWG1) The overall projected unsupportable time is moderate to severe for DSS Maintenance and MGS Mapping and Beta Supplement and moderate for MRO Prime Science. Contention is primarily due to oversubscription at DSS-34 for DSS Maintenance, MGS and MRO. DSS maintenance has nearly 50% view period overlap with Mars missions.

3. (34BWG2) Moderate to severe unsupportable time is forecast for MEX Orbital Science. Contention is due to 100% view period overlap between MEX and MRO and primarily due to oversubscription at DSS-25.

Contention levels on the 34HEF,34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13)



EVENTS

Cassini Tour

Chandra ACA Dark Current measurement in week 10

GSSR Mercury Radar Observation support in week 12

Kepler Science Operations and Quarterly Roll in week 12, DOY 078-079

Mars Express Orbital Science

Mars Odyssey THEMIS support, Delta DOR in week 11

MESSENGER DSM-3 in week 12, DOY 078

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

Phoenix Approach beginning in week 13, Delta DOR in weeks 10 – 13

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses End Of Extended Mission in week 13

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13) (continued)

RECOMMENDATIONS

☺ M01O Mapping MSPA 7 passes at 70M with MGS Mapping and Beta Supplement. M01O THEMIS MSPA 7 passes at 70M with MRO Prime Science. (1,2)

☺ MEX Orbital Science move all passes from DSS-15,25 to DSS-15,24. (2) JDI

☺ MGS Mapping and Beta Supplement change seven 14-hour passes to seven 10-hour passes and seven 4-hour passes at DSS-26,34,54. Move all 10-hour passes from DSS-26,34,54 to 70M and MSPA with M01O Mapping. (1,2)

☺ MRO Prime Science move 7 of 14 passes from DSS-25,34,55 to 70M and MSPA with M01O THEMIS. (1,2)

☺ PHX Approach move 8 passes in week 13 from DSS-25,45,54 to DSS-26,45,55. Move all 7 passes in week 13 from DSS-25,34,65 to DSS-25,43,55. (1,2)

☺ SOHO TSO move all passes from 26M to DSS-27,46,66 in week 12. JDI

☺ ULYS change 10-hour passes at DSS-24,34 to use split passes of a 4-hour pass at DSS-24 and a 6-hour downlink only pass at DSS-54. (2) JDI

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55,26\34 in week 10 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: KEPL, MGS, MRO, MSGR, STA and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45, 15\65 in weeks 11 and 12 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M01O, MEX and PHX.

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13) (continued)

ANALYSES

1. (34BWG1) The overall projected unsupportable time for this period is moderate for MSGR Cruise, moderate to severe for MRO Prime Science and Ka Ops Demo, severe for DSS Maintenance and severe to extreme for MGS Mapping and Beta Supplement. Contention is due to nearly 50% view period overlap between DSS Maintenance and Mars missions, 30% overlap between MSGR and Mars missions and nearly 100% view period overlap between MGS and MRO and is mainly due to oversubscription at DSS-34.

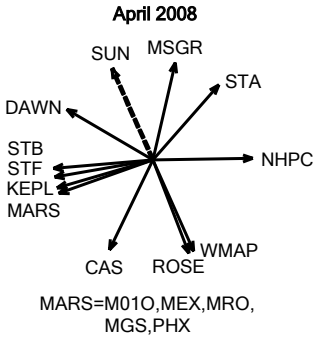
2. (34BWG2) Moderate unsupportable time is forecast for MGS Mapping and Beta Supplement and PHX Approach and moderate to severe for DSS Maintenance and MEX Orbital Science. Contention is due to 50 - 100% view period overlap between Mars missions and DSS Maintenance in daylight view and is primarily at DSS-25.

Contention levels on the 70M, 34HEF, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2008 – April (Weeks 14 - 17)



EVENTS

Cassini Tour

Kepler Science Operations

Mars Express Orbital Science

Mars Odyssey THEMIS, Relay Support and Delta DOR in week 16

Mars Reconnaissance Ka Ops Demo and Prime Science

Phoenix Approach and TCM in week 15, DOY 101 and Delta DOR in weeks 14 – 17

STEREO Ahead Prime Science

STEREO Behind Prime Science

Wilkinson Microwave Anisotropy Probe Maneuver in week 17

Events, Recommendations and Analyses

2008 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

☺ M01O Mapping MSPA all passes at 70M with MGS Mapping and Beta Supplement. THEMIS MSPA all passes at 70M with MRO Prime Science. M01O Relay move all passes from DSS-15,43 to DSS-15,45 in weeks 14,15 and 17. (1,2,3)

☺ MEX Orbital Science move all passes from DSS-15,25 to DSS-15,24,25. (3) JDI

☺ MGS Mapping and Beta Supplement change seven 14-hour passes to seven 10-hour and seven 4-hour passes at DSS-26,34,54. Move seven 10-hour passes from DSS-26,34,54 to 70M and MSPA with M01O Mapping. (2,3)

☺ MRO Prime Science move 7 of 14 passes from DSS-25,34,55 to 70M and MSPA with M01O THEMIS. Move the remaining passes from DSS-25,34,55 to DSS-26,34,55. (2,3)

☺ MSGR Cruise move all passes from DSS-26,34,54 to 34HEF. (2,3) JDI

☺ SOHO TSO move 8 of 15 passes from 26M to DSS-27,46,66 in week 16. JDI

Events, Recommendations and Analyses

2008 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55,26\34 in weeks 15 and 16 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, KEPL, MGS, MRO, MSGR, PHX, STA and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45,15\65 in week 17 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M01O, MEX and MSGR.

Events, Recommendations and Analyses

2008 – April (Weeks 14 - 17) (continued)

ANALYSES

1. (70M) Moderate unsupportable time is forecast for DSS Bearing Maintenance. Contention is primarily at DSS-14 due to view period overlap between Mars missions and DSS Maintenance in Sun view period.

2. (34BWG1) The overall projected unsupportable time is moderate to severe for DSS Maintenance and MRO Ka Ops Demo, moderate for MSGR Cruise, RFC CAT X/Ka and STB Prime Science, severe to extreme for MGS Mapping and Beta Supplement and MRO Prime Science. Contention is due to 100% overlap between Mars Missions, KEPL and STB, nearly 40% overlap with MSGR and is further compounded by simultaneous 24-hour support for RFC CAT X/Ka at DSS-26\55, 26\34.

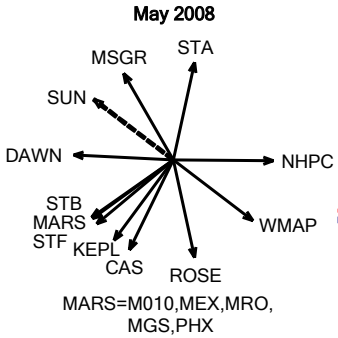
3. (34BWG2) Moderate to severe unsupportable time is forecast for DSS Maintenance, MRO Prime science and PHX Approach and severe for MEX Orbital Science. Contention is due to 50-100% view period overlap between DSS Maintenance and Mars missions. Contention is primarily at DSS-25.

Contention levels on the 34HEF, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22)



EVENTS

ATOT A01 Imagery 24-hour observation at DSS-43 in week 18

Cassini Tour

EGS Global VLBI Quarterly Epoch at DSS-14\63 in week 21 and EVN J-M4 Quarterly Epoch at DSS-14\63 in week 22

GSSR Mercury Radar Observation in weeks 20 – 21

Kepler Science Operations

Mars Express Orbital Science

Mars Odyssey THEMIS, Relay support and Delta DOR in week 20

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

Phoenix Approach, EDL in week 21, DOY 146 and Initial Surface Operations beginning DOY 147, Delta DOR in weeks 18 – 21

STEREO Ahead Prime Science and End Of Prime Mission in week 20, DOY 137

STEREO Behind Prime Science and End Of Prime Mission in week 20, DOY 137

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22) (continued)

RECOMMENDATIONS

☺ M01O Mapping MSPA all passes at 70M with MRO Prime Science. MSPA 7 to 14 Relay passes at DSS-15,43,65 with MGS Mapping and Beta Supplement in weeks 19 – 22. Move the remaining 7 Relay passes in weeks 19 and 21 and the remaining 5 Relay passes in week 20 from DSS-15,43,65 to DSS-26,45,55. Move the remaining 7 Relay passes in week 22 from DSS-15,43,65 to DSS-26,45,54 and MSPA with MGS Map and Beta Supplement. (1,2)

☺ MEX Orbital Science MSPA with MGS Mapping and Beta Supplement at DSS-15,25 in weeks 19-21. (2,4) JDI

☺ MGS Mapping and Beta Supplement change seven 14-hour passes to seven 8-hour and seven 6-hour passes at DSS-26,34,54. Move seven 6-hour passes from DSS-26,34,54 to DSS-15,43,65, increase pass duration from 6 hours to 8 hours and MSPA with M01O Relay. Move seven 8-hour passes from DSS-26,34,54 to DSS-15,25 and MSPA with MEX Orbital Science in weeks 19 – 21. Move seven 8-hour passes from DSS-26,34,54 to DSS-26,45,54 and MSPA with M01O Relay in week 22. (3,4)

☺ MRO Prime Science move 7 of 14 passes from DSS-25,34,55 to the 70M and MSPA with M01O Mapping. (1,3)

☺ MSGR Cruise move all passes from DSS-26,34,54 to 34HEF. (3,4) JDI

☺ PHX Approach move all passes from DSS-25,34,65 to DSS-26,43,65. (3,4) JDI

☺ SOHO TSO move 8 of 15 passes from 26M to DSS-27,46,66 in week 20. JDI

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55,26\34 in weeks 21 and 22 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, KEPL, MEX, MGS, MRO, MSGR, PHX, STA and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45, 15\65 in week 18 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M01O and MEX.

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate for DSS Bearing and Routine Maintenance and EGS EVN J-M4 and severe for M01O Mapping. Contention for M01O Mapping is due to 100% view period overlap between M01O and PHX. The contention for DSS Routine Maintenance is due to EGS EVN J-M4 requesting simultaneous 16-hour support at DSS-14/63. Contention for Bearing Maintenance is due to 50% view period overlap between DSS and M01O and is primarily at DSS-43.

2. (34HEF) The projected unsupportable time is moderate to severe for DSS Routine Maintenance. Contention is due to simultaneous 24-hour support for RFC CAT S/X and nearly 100% view period overlap between M01O, MEX and PHX.

3. (34BWG1) The projected unsupportable time is moderate for PHX TCM, RFC CAT X/Ka, STB Prime Science, MSGR Cruise and MRO Ka Ops Demo, severe for MRO Prime Science and extreme for MGS Mapping and Beta Supplement. Contention is due to nearly 100% view period overlap between KEPL, MGS, MRO, STB and is further compounded by simultaneous 24-hour support at DSS-26/34 for RFC CAT M&E X/Ka.

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22) (continued)

ANALYSES

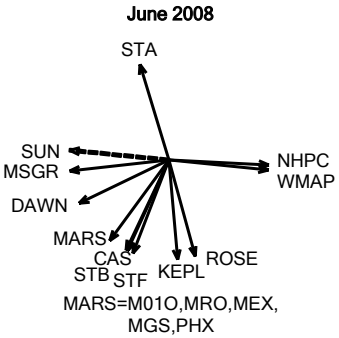
4. (34BWG2) The projected unsupportable time is moderate for MRO Prime Science, moderate to severe for PHX Approach, MEX Orbital Science and DSS Routine maintenance. Contention is due to significant view period overlap between DSS, MEX, PHX, KEPL, MSGR and is further compounded by simultaneous 24-hour dual support for RFC CAT X/Ka.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2008 – June (Weeks 23 - 26)



EVENTS

ATOT Mission Observation event at 70M in week 25

Cassini Tour

Chandra Earth Eclipse in weeks 24 – 26, DOY 161 – 181

Kepler Science Operations and Quarterly Roll Maneuver in week 25, DOY 171 – 172

Mars Express Orbital Science

Mars Odyssey Relay continuous

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Maneuver in week 26, DOY 175 – 181

Phoenix Relay and Surface Operations

STEREO Ahead Prime Science

STEREO Behind Prime Science

Events, Recommendations and Analyses

2008 – June (Weeks 23 - 26) (continued)

RECOMMENDATIONS

☺ M01O Relay move 7 of 21 passes from DSS-24,43,54 to DSS-26,45,54 and MSPA with MGS Mapping and Beta Supplement. Move 7 of 14 remaining passes from DSS-24,43,54 to 70M. Move the remaining 7 passes from DSS-24,43,54 to DSS-25,34,65 and MSPA with MRO Prime Science. (1,2,3)

☺ MGS Mapping and Beta Supplement change seven 14-hour passes to fourteen 8-hour passes at DSS-26,34,54. Move 7 of 14 passes from DSS-26,34,54 to DSS-15,25 and MSPA with MEX Orbital Science. Move remaining 7 passes from DSS-26,34,54 to 70M and MSPA with M01O Relay. (2,3) JDI

☺ MEX Orbital Science MSPA all 7 passes at DSS-15,25 with MGS Mapping and Beta Supplement. (3) JDI

☺ MRO Prime Science move 7 of 14 passes from DSS-25,34,55 to DSS-25,34,65 and MSPA with M01O Relay. (3)

☺ MSGR Cruise move all 3 passes from DSS-26,34,54 to 34HEF. (2,3) JDI

☺ SOHO TSO move 8 of 15 passes from 26M to DSS-27,46,66 in week 24. JDI

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45,15\65 in weeks 23 and 24 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, MEX, MSGR and PHX.

Events, Recommendations and Analyses

2008 – June (Weeks 23 - 26) (continued)

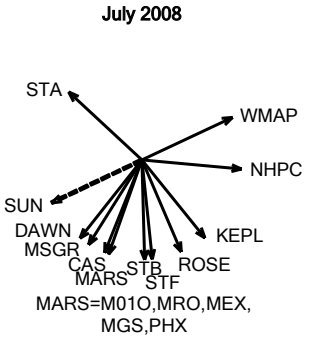
ANALYSES

1. (70M) The overall projected unsupportable time is moderate to severe for DSS Bearing and Routine Maintenance and M01O Relay. Contention is primarily at DSS-43 due to significant view period overlap between DSS Maintenance and M01O.
2. (34BWG1) The overall projected unsupportable time is moderate to severe for CAS Tour, moderate for IMAG routine support, MRO Prime Science and STB Prime Science, severe for DSS Maintenance and severe to extreme for KEPL Quarterly Roll and MGS Mapping and Beta Supplement. Contention is due to nearly 100% view period overlap between MGS, MRO, MSGR, STB, NHPC and PHX.
3. (34BWG2) The overall projected unsupportable time is moderate to severe for DSS Maintenance and severe for MEX Orbital Science. Contention is due to 40 – 100% overlap between KEPL, MEX, MSGR and STA.

Contention levels on the 34HEF, 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Events, Recommendations and Analyses

2008 – July (Weeks 27 - 31)



EVENTS

Cassini Tour and End Of Prime Mission in week 27, DOY 182

Chandra ACA Dark Current Measurement in week 27

GSSR Asteroid 2003 YE45 in weeks 28 – 29, GSSR Mercury Radar in weeks 28 – 29

Kepler Science Operations

Mars Express Orbital Science

Mars Odyssey Relay continuous

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Maneuver in week 27

Phoenix Relay and Surface Operations

SOHO HSO continuous beginning in week 29

Stereo Ahead Prime Science

Stereo Behind Prime Science

Events, Recommendations and Analyses

2008 – July (Weeks 27 - 31) (continued)

RECOMMENDATIONS

☺ GSSR Mercury Radar move 2 supports from week 28 to week 30 and 1 support from week 29 to week 31. (1)

☺ M01O Relay move 7 of 21 passes from DSS-24,43,54 to 70M; move 7 of remaining 14 passes to DSS-26,45,54 and MSPA with MGS Mapping; move remaining 7 passes to DSS-25,34,55 and MSPA with MRO Prime Science. (1,2)

☺ MEX Orbital Science move all passes from DSS-15,25 to DSS-15,24 and MSPA with MGS Mapping. (3)

☺ MGS Mapping change seven 14-hour passes at DSS-26,34,55 to fourteen 8-hour passes; Move 7 of 14 passes from DSS-26,34,55 to DSS-26,45,54 and MSPA with M01O Relay; Move remaining 7 passes to DSS-15,24 and MSPA with MEX Orbital Science. (2,3)

☺ MRO Prime Science MSPA 7 of 14 passes at DSS-25,34,55 with M01O Relay. (2,3)

☺ MSGR Cruise move passes from DSS-26,34,54 to DSS-26,45,65. (2) JDI

☺ SOHO TSO move 15 supports from 26M to DSS-27,46,66 in week 28. (4) JDI

☺ STB move supports from DSS-26,34,54 to DSS-26,45,65. (2) JDI

Events, Recommendations and Analyses

2008 – July (Weeks 27 - 31) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55 in week 27 and at DSS-26\34 in week 28 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: M01O, MEX, MGS and MRO.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45 in week 29 and DSS-15\65 in week 30 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M01O, MEX, MSGR and STB.

Events, Recommendations and Analyses

2008 – July (Weeks 27 - 31) (continued)

ANALYSES

1. (70M) Moderate unsupportable time is forecast for CAS Tour and STF. Moderate to severe unsupportable time is forecast for DSS Bearing Maintenance, GSSR Mercury, and M01O Relay. Contention is due to 50 – 90% view period overlap between CAS, DSS, GSSR Asteroid YE45, GSSR Mercury, and Mars missions.

2. (34BWG1) Moderate unsupportable time is forecast for DSS Maintenance, MRO Prime Science and MSGR Cruise. Severe to extreme unsupportable time is forecast for MGS Mapping, M01O Relay and STB. Contention is due to oversubscription and 40 – 90% view period overlap between DSS, KEPL, Mars missions, MSGR, and STB.

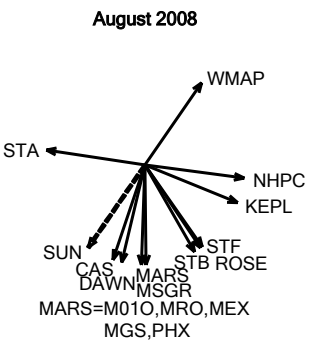
3. (34BWG2) Moderate to severe unsupportable time is forecast for DSS Maintenance and MEX Orbital Science. Contention is due to greater than 40 – 90% view period overlap between CAS, DSS, KEPL, Mars missions, MSGR, and STB.

Contention levels on the 34HEF, 26M and 34HSB are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2008 – August (Weeks 32 - 35)



EVENTS

ATOT A01 Imagery 24-hour Observation at DSS-43 in week 34

Cassini Tour

GSSR Asteroid 1991 VH in weeks 33 – 34

Kepler Science Operations

Mars Express Orbital Science

Mars Odyssey Relay continuous

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

Phoenix Relay and Surface Operations

Rosetta Asteroid STEINS Flyby beginning in week 32

SOHO HSO continuous

Stereo Ahead Prime Science

Stereo Behind Prime Science

Wilkinson Microwave Anisotropy Probe Maneuver in week 33

Events, Recommendations and Analyses

2008 – August (Weeks 32 - 35) (continued)

RECOMMENDATIONS

☺ CAS Tour move passes from DSS-15,45,55 to 34HEF; Move 1 pass from DSS-14,63 to DSS-63 only in week 33. (1,4) JDI

☺ CHDR move 5 of 21 passes from 34BWG1 to 26M,DSS-27 and increase pass duration from 1 to 2 hours in weeks 33 – 35. (3)

☺ CLU2 SSO move 2 supports from DSS-16/27/24/15/14 to DSS-16/27/24/15 in week 33. (1)

☺ GSSR Asteroid 1991 VH move 1 of 5 supports from week 33 to week 34 and accommodate DSS-14 Maintenance in weeks 33 and 34. (1)

☺ M01O Relay move 7 of 21 passes from DSS-15,43,65 to 70M and in week 33 use DSS-43,63 only; move 7 of remaining 14 passes to DSS-26,45,54 and MSPA with MGS Mapping; move remaining 7 passes to DSS-25,34,55 and MSPA with MRO Prime Science. (1,2)

☺ MEX Orbital Science move all passes from DSS-15,25 to DSS-15,24 and MSPA with MGS Mapping. (2,4)

☺ MGS Mapping change seven 14-hour passes at DSS-26,34,55 to fourteen 8-hour passes; Move 7 of 14 passes from DSS-26,34,55 to DSS-26,45,54 and MSPA with M01O Relay; Move remaining 7 passes to DSS-15,24 and MSPA with MEX Orbital Science. (3,4)

☺ MRO Prime Science MSPA 7 of 14 passes with M01O Relay at DSS-25,34,55. (3,4)

Events, Recommendations and Analyses

2008 – August (Weeks 32 - 35) (continued)

RECOMMENDATIONS

☺ MSGR Cruise move passes from DSS-26,34,54 to DSS-26,45,65. (3) JDI

☺ STB Prime Science move passes from DSS-26,34,54 to DSS-26,45,65. (3) JDI

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55 in week 33 and at DSS-26\34 in week 34 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: KEPL, M01O, MEX, MRO, ROSE, STA and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45 in week 35 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M010, MEX, MSGR and STB.

Events, Recommendations and Analyses

2008 – August (Weeks 32 - 35) (continued)

ANALYSES

1. (70M) Moderate unsupportable time is forecast for CAS Tour, DSS Maintenance, GSSR Asteroid 1991 VH, M01O Relay, and STF. Contention is primarily due to oversubscription at DSS-14 during asteroid support and 75 – 90% view period overlap between CAS, DSS, GSSR 1991 VH, Mars missions and STF.

2. (34HEF) Moderate unsupportable time is forecast for CAS Tour, DSS Maintenance, and M01O Relay. Severe unsupportable time is forecast for MEX Orbital Science. Contention is due to 70 – 90% view period overlap between CAS, DSS, Mars missions, and ROSE.

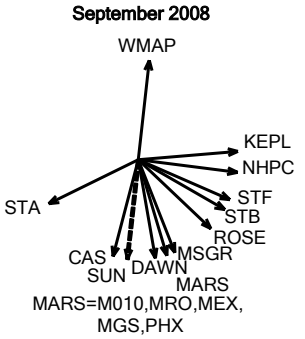
3. (34BWG1) Moderate unsupportable time is forecast for DSS Maintenance, MRO Prime Science and Ka Ops Demo, MSGR Cruise, STA and STB. Severe unsupportable time is forecast for MGS Mapping. Contention is primarily due to oversubscription at DSS-34 and 50 - 90% view period overlap between CAS, DSS, KEPL, Mars missions, MSGR, ROSE and STB.

4. (34BWG2) Moderate unsupportable time is forecast for CAS Tour and DSS Maintenance. Severe unsupportable time is forecast for MEX Orbital Science. Contention is due to 50 – 90% view period overlap between CAS, DSS, KEPL, Mars missions, MSGR and STB.

Contention levels on the 26M and 34HSB are workable and should resolve during final schedule preparations and negotiations.

Events, Recommendations and Analyses

2008 – September (Weeks 36 - 39)



EVENTS

ATOT A01 Astrometry 24-hour event at DSS-43 in week 37

Cassini Tour

GSSR Asteroid 2000 DP10 in week 37 and Asteroid 1998 U01 in week 39

Kepler Science Operations and Quarterly Roll Maneuver in week 38, DOY 260 – 261

Mars Express Orbital Science

Mars Odyssey Relay continuous

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

New Horizons Checkout beginning in week 39 and Delta DOR in week 39

Phoenix Relay and Surface Operations

Rosetta Asteroid STEINS Flyby ending in week 38

SOHO HSO continuous

Stereo Ahead Prime Science

Stereo Behind Prime Science

Events, Recommendations and Analyses

2008 – September (Weeks 36 - 39) (continued)

RECOMMENDATIONS

☺ CAS Tour move passes from DSS-15,45,55 to 34HEF. (4) JDI

☺ CHDR move 5 of 21 passes from 34BWG1 to 26M,DSS-27 and increase pass duration from 1 to 2 hours. (3)

☺ GSSR Asteroid 1998 U01 move 1 of 6 supports from week 39 to DOY 265 in week 38 and accommodate DSS-14 Maintenance in week 39. (1)

☺ M01O Relay move 7 of 21 passes from DSS-15,43,65 to 70M and in week 39 use DSS-43,63 only; move 7 of remaining 14 passes to DSS-26,45,54 and MSPA with MGS Mapping; move remaining 7 passes to DSS-25,34,55 and MSPA with MRO Prime Science. (1,2)

☺ MEX Orbital Science move all passes from DSS-15,25 to DSS-15,24 and MSPA with MGS Mapping. (2,4)

☺ MGS Mapping change seven 14-hour passes at DSS-26,34,55 to seven 8-hour passes and seven 7-hour passes; Move the seven 8-hour passes from DSS-26,34,55 to DSS-26,45,54 and MSPA with M01O Relay; Move the seven 7-hour passes to DSS-15,24 and MSPA with MEX Orbital Science. (3,4)

☺ MRO Prime Science MSPA 7 of 14 passes with M01O Relay at DSS-25,34,55. (1,3,4)

☺ MSGR Cruise move passes from DSS-26,34,54 to DSS-26,45,65. (3) JDI

☺ STB Prime Science move passes from DSS-26,34,54 to DSS-26,45,65. (3) JDI

Events, Recommendations and Analyses

2008 – September (Weeks 36 - 39) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\65 in week 36 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M010, MEX, MSGR, ROSE, STA and STB.

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55 in week 39 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: KEPL, M01O, MEX, MRO, STA and STB.

Events, Recommendations and Analyses

2008 – September (Weeks 36 - 39) (continued)

ANALYSES

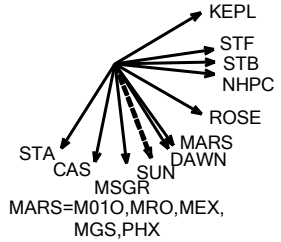
1. (70M) Moderate unsupportable time is forecast for CAS Tour, DSS Maintenance, M01O Relay, and STF. Contention is due to oversubscription primarily at DSS-14 during asteroid support and significant view period overlap between CAS, DSS, GSSR Asteroid 1998 U01, Mars missions and STF.
2. (34HEF) Moderate unsupportable time is forecast for CAS Tour, M01O Relay and MEX Orbital Science. Contention is due to 50 – 90% view period overlap between CAS, Mars missions, MSGR and ROSE.
3. (34BWG1) Moderate unsupportable time is forecast for DSS Maintenance, KEPL Quarterly Roll in week 38, MSGR Cruise and MRO Ka Ops Demo. Moderate to severe unsupportable time is forecast for MGS Mapping, MRO Prime Science, STA Prime Science and STB Prime Science. Contention is due to oversubscription primarily at DSS-34 and 40 – 90% view period overlap between CAS, DSS, Mars missions, MSGR, ROSE and STB.
4. (34BWG2) Moderate unsupportable time is forecast for CAS Tour, MGS Mapping in week 38, STA Prime Science, and STB Prime Science. Moderate to severe unsupportable time is forecast for DSS Maintenance and MEX Orbital Science. Contention is due to 40 – 90% view period overlap between CAS, DSS, Mars missions, MSGR, and STB.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44)



EVENTS

Cassini Tour

Kepler Science Operations

Mars Express Orbital Science

Mars Odyssey Relay continuous

Mars Reconnaissance Orbiter Ka Ops Demo and Prime Science

MESSENGER Mercury Flyby in weeks 41 – 42, DOY 280 – 287

New Horizons Checkout, Delta DOR in week 40 and Maneuver in week 41, DOY 280 – 286

Phoenix Relay and Surface Operations ending and End Of Prime Mission in week 43

SOHO HSO continuous ending in week 41

Spitzer End Of Extended Mission in week 42

Stereo Ahead Prime Science

Stereo Behind Prime Science

Wilkinson Microwave Anisotropy Probe End Of Extended Mission in week 40

Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44) (continued)

RECOMMENDATIONS

☺ CAS Tour move passes from DSS-15,45,55 to 34HEF. (4) JDI

☺ CHDR move 7 of 21 supports from 34BWG1 to 26M and increase pass duration from 1 to 2 hours in weeks 43 - 44. (3)

☺ DSS Maintenance reduce 1 of 2 support durations from 8-hours to 6-hours at DSS-14 in week 41. (1)

☺ M01O Relay move 7 of 21 passes from DSS-15,43,65 to 70M; move 7 of remaining 14 passes to DSS-26,45,54 and MSPA with MGS Mapping; move remaining 7 passes to DSS-25,34,55 and MSPA with MRO Prime Science. MSPA 3 of 7 passes at 70M with MRO Prime Science in week 41. (1,2)

☺ MEX Orbital Science move all passes from DSS-15,25 to DSS-15,24 and MSPA with MGS Mapping. (2,4)

☺ MGS Mapping change seven 14-hour passes at DSS-26,34,55 to seven 8-hour passes and seven 6-hour passes; Move the seven 8-hour passes from DSS-26,34,55 to DSS-26,45,54 and MSPA with M01O Relay; Move the seven 6-hour passes to DSS-15,24 and MSPA with MEX Orbital Science. (3,4)

☺ MRO Prime Science MSPA 7 of 14 passes with M01O Relay at DSS-25,34,55. MSPA 3 passes with M010 Relay at the 70M subnet in week 41. (1,3,4)

Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44) (continued)

RECOMMENDATIONS

☺ MSGR Cruise move passes from DSS-26,34,54 to DSS-26,45,65. (3,4) JDI

☺ SOHO TSO move 15 passes from 26M to DSS-27,46,66 in week 42. JDI

☺ STA Prime Science move passes from DSS-26,34,55 to DSS-24,45,65. (3,4) JDI

☺ STB Prime Science move passes from DSS-26,34,54 to DSS-26,45,65. (3,4) JDI

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\34 in week 40 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: KEPL, M01O, MEX, MRO, STA and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45 in week 41 and at DSS-15\65 in week 42 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CAS, M010, MEX, MSGR, STA and STB.

Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44) (continued)

ANALYSES

1. (70M) Moderate to severe unsupportable time is forecast for DSS Routine and Bearing Maintenance. Moderate to extreme unsupportable time is forecast for M01O Relay. Contention is due to oversubscription supporting MSGR Flyby and NHPC Maneuver in week 41 and 30 – 90% view period overlap between CAS, DSS, Mars missions, MSGR, NHPC and STF.

2. (34HEF) Moderate unsupportable time is forecast for CAS Tour in week 41, M01O Relay and MEX Orbital Science. Contention is due to greater than 65% view period overlap between CAS and Mars missions.

3. (34BWG1) Moderate unsupportable time is forecast for DSS Maintenance, MRO Ka Ops Demo, MSGR and STB Prime Science. Severe unsupportable time is forecast for MGS Mapping, MRO Prime Science, and STA Prime Science. Contention is due to oversubscription primarily at DSS-34 and 30 – 90% view period overlap between CAS, DSS, Mars missions, MSGR, NHPC and STB.

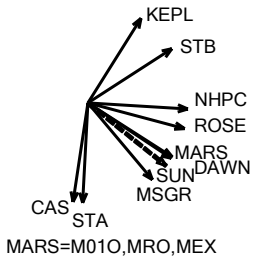
4. (34BWG2) Moderate unsupportable time is forecast for CAS Tour, DSS Maintenance, MEX Orbital Science, in weeks 43 and 44 for MRO Prime Science and in week 40 for STA and STB Prime Science. Contention is due to 40 – 90% view period overlap between CAS, DSS, Mars missions, MSGR, STA and STB.

Contention levels on the 26M and 34HSB subnets are workable and should resolve during final schedule preparations and negotiations.

Resource Allocation Review Board

Events, Recommendations and Analyses

2008 – November (Weeks 45 - 48)



EVENTS

Cassini Tour

Chandra ACA Dark Current Measurement in week 45 and Leonid Pass in week 48

EGS Global VLBI Quarterly Epoch at DSS-14\63 in week 45 and EVN J-M4 Quarterly Epoch at DSS-14\63 in week 46

GSSR Asteroid 4179 Toutatis in weeks 46 – 47

Kepler Science Operations

Mars Express Orbital Science

Mars Odyssey Relay continuous ending in week 48

Mars Global Surveyor End Of Extended Mission in week 45, DOY 308

Mars Reconnaissance Orbiter Ka Ops Demo ending in week 46, Prime Science ending in week 47 and Solar Conjunction beginning in week 47

New Horizons Checkout ending in week 45

Stereo Ahead Prime Science

Stereo Behind Prime Science

Events, Recommendations and Analyses

2008 – November (Weeks 45 - 48) (continued)

RECOMMENDATIONS

☺ ACE move 2 of 7 supports from DSS-16,66 to 34BWG1 in week 46. JDI

☺ CAS Tour move passes from DSS-15,45,55 to 34HEF in weeks 45 – 46. (4) JDI

☺ GSSR Asteroid 4179 Toutatis to accommodate DSS-14 Maintenance in weeks 46 – 47. (1)

☺ EGS Calibration and EVN J-M4 move support from week 46 to 48. (1)

☺ M01O Relay move 7 of 21 passes from DSS-15,43,65 to 70M and use DSS-43,63 only in weeks 46 – 47; Move 7 of remaining 14 passes to 34HEF; move remaining 7 passes to DSS-25,34,55; MSPA with MRO at DSS-25,34,55 in weeks 45 – 46. (1,2)

☺ MEX Orbital Science move all passes from DSS-15,25 to DSS-15,26 in weeks 45 – 46. (4)

☺ MRO Prime Science MSPA 7 of 14 passes with M01O Relay at DSS-25,34,55 in weeks 45 – 46. (3,4)

☺ MSGR Cruise move passes from DSS-26,34,54 to DSS-26,45,65 in weeks 45 – 46. (3) JDI

☺ SOHO TSO move 15 passes from 26M to DSS-27,46,66 in week 46; move two 8-hour passes from 26M to 34BWG1 in week 46. JDI

☺ STA Prime Science move passes from DSS-26,34,55 to DSS-24,45,65. (3,4) JDI

☺ STB Prime Science move passes from DSS-26,34,54 to DSS-26,45,65. (3) JDI

Events, Recommendations and Analyses

2008 – November (Weeks 45 - 48) (continued)

RECOMMENDATIONS

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55 in week 45 and at DSS-26\34 in week 46 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: KEPL, M01O, MRO, STA and STB.

RFC CAT M&E S/X-Band simultaneous 24-hour supports at DSS-15\45 in week 47 and at DSS-15\65 in week 48 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: M01O, MEX, STA, and STB.

Events, Recommendations and Analyses

2008 – November (Weeks 45 - 48) (continued)

ANALYSES

1. (70M) Moderate unsupportable time is forecast for CAS Tour in week 46, DSS Maintenance in week 46 and GSSR Asteroid 4179 Toutatis in weeks 46 and 47. Contention is due to greater than 75% view period overlap between DSS, GSSR Asteroid 4179 Toutatis and Mars missions and is compounded by simultaneous EGS EVN J-M4 and Global VLBI requirements.

2. (34HEF) Moderate unsupportable time is forecast for CAS Tour in weeks 47 and 48, MEX Orbital Science, and M01O Relay. Contention is due to oversubscription primarily at DSS-15 and significant view period overlap between CAS and Mars missions.

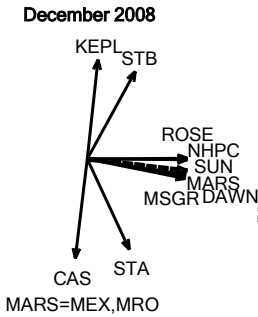
3. (34BWG1) Moderate unsupportable time is forecast for MRO Prime Science and MSGR Cruise in weeks 45 and 46, and STB Prime Science. Severe unsupportable time is forecast for STA Prime Science in weeks 45 and 46. Contention is due to significant view period overlap between DSS, Mars missions, MSGR, STA and STB.

4. (34BWG2) Moderate unsupportable time is forecast for DSS Maintenance, MEX Orbital Science, MRO Prime Science and STA Prime Science in weeks 45 and 46. Contention is due to significant view period overlap between DSS, Mars missions, MSGR, STA and STB.

Contention levels on the 26M and 34HSB subnets are workable and should resolve during final schedule preparations and negotiations.

Events, Recommendations and Analyses

2008 – December (Weeks 49 - 52)



EVENTS

ATOT A01 Imagery 24-hour Observation at DSS-43 in week 51

Cassini Tour

Chandra Earth Eclipse in weeks 50 – 52

Kepler Science Operations and Quarterly Roll Maneuver in week 51, DOY 354 – 355

Mars Express Orbital Science

Mars Reconnaissance Orbiter Solar Conjunction

MESSENGER DSM-4 in week 49, DOY 341

New Horizons Maneuver in weeks 51 – 52

Stereo Ahead Prime Science

Stereo Behind Prime Science

Events, Recommendations and Analyses

2008 – December (Weeks 49 - 52) (continued)

RECOMMENDATIONS

☺ ACE move 3 of 7 passes from DSS-16,66 to 34BWG1 in week 50. JDI

☺ STA Prime Science move passes from DSS-26,34,55 to DSS-26,45,65 in weeks 49 – 51. (1) JDI

☺ STB Prime Science move passes from DSS-26,34,54 to DSS-24,45,65 in week 51. (1,2) JDI

☺ SOHO TSO move 15 passes from 26M to DSS-27,46,66 in week 50; move two 8-hour passes from 26M to 34BWG1 in week 50. JDI

Note:

RFC CAT M&E X/Ka-Band simultaneous 24-hour supports at DSS-26\55 in week 51 and at DSS-26\34 in week 52 will require accommodation from the following projects/users directly or indirectly during the Mid-Range Scheduling negotiation process: CHDR, KEPL, MRO, MSGR, STA and STB.

Events, Recommendations and Analyses

2008 – December (Weeks 49 - 52) (continued)

ANALYSES

1. (34BWG1) Moderate unsupportable time is forecast for STA Prime Science in weeks 49 and 51. Contention is due to oversubscription at DSS-34.

2. (34BWG2) Moderate unsupportable time is forecast for DSS Maintenance in week 51. Contention is due to oversubscription at DSS-26.

Contention levels on the 70M, 26M, 34HEF and 34HSB subnets are workable and should resolve during final schedule preparations and negotiations.

Supplemental Materials

Supplemental materials may be found on the RAPSO Homepage at:

http://rapweb.jpl.nasa.gov

- **Ongoing Users Negotiated Requirements**
  - **Individual User Loading Profiles**
- **Resource Allocation Review Board Information**
  - **Supplemental Yearly Information**